CHAPTER 4: INSPECTION PROCEDURES APPLICABLE TO VESSEL TYPES, CLASSES, AND CATEGORIES

A. SMALL PASSENGER VESSELS ("T-BOATS")

1. Introduction

The statutes relating to the inspection and certification of small passenger vessels are found in 46 U.S.C. 3301 et seq. The implementing regulations are contained in 46 CFR 175-187 (Subchapter T). The regulatory program for small passenger vessel inspection requires a realistic appraisal of the operational needs of this industry. Because of the many types of vessels and operations to be considered, it is not practical to develop regulations that cover all situations. Under Subchapter T, Officers-in-Charge, Marine Inspection (OCMI) are authorized to accept alternates or equivalents, and to grant departures from the regulations when circumstances so warrant. In the development of the T-boat regulations, the primary considerations were:

a. Ignorance or misunderstanding by most passengers of the hazards of the sea;

b. Overloading, fires, explosions, and marginal seaworthiness (these had caused several serious casualties on uninspected passenger-carrying vessels); and

c. The need for a means of ready escape and survival in case of casualty.

SPECIAL CONSIDERATION: In carrying out the T-boat inspection program, it can never be assumed that vessel owners or operators are familiar with Coast Guard regulations and procedures. Inspection personnel must communicate with them on a continuing, personal basis to explain requirements in detail. Experience has shown that after a vessel is inspected and requirements are understood, most of an owner's apprehension subsides and cooperation is enhanced. Reports of inspection for certification and reinspection should note all items that have required interpretations of regulations by the OCMI, the district commander, or the Commandant. Such items include equivalents, substitutions, non-approved equipment, nonstandard fuel tanks, variations from subdivision standards, etc. These notes will form the basis for comparison of installed items with regulatory requirements at subsequent inspections.

2. Application

a. Title 46 U.S.C. 3301(8) requires the inspection of small passenger vessels. Title 46 U.S.C. 2101(35) defines "small passenger vessels", and 46 U.S.C. 2101(21) and (21a) define "passenger" and "passenger for hire." These statutory definitions should be used in applying the inspection regulations.

b. There have been inquiries concerning application of the passenger vessel laws to vessels which are owned by a corporation. The specific questions related to the exemption in 46 U.S.C. 2101(21)(B)(v) and whether corporate owned vessels could ever be used only for pleasure. Each investigation into possible illegal passenger vessel operations must be evaluated based on the facts of that specific case. There are many corporate owned, documented vessels with pleasure as the only endorsement. Some of these vessels may be operating illegally by carrying passengers, however, most are undoubtedly legitimate corporate owned pleasure vessels.

c. Corporate ownership alone does not prove that the vessel was a small passenger vessel. If business was not conducted during the voyage (i.e. - carrying company employees as a morale incentive or bonus for performance) and no expectation of future business was anticipated (good will) from the voyage, the vessel should be considered as being operated for pleasure, and not as a small passenger vessel.

3. Inspection Standards

General

a. By statute, vessels less than 100 gross tons (GT) carrying more than 6 passengers unless exempted from inspection by 46 CFR 175.05-1, shall be inspected and certificated under Subchapter T (thereby referred to as "T-boats"). The regulations only apply to vessels carrying more than 6 passengers. Vessels carrying more than 150 passengers are subject to certain additional requirements contained in 46 CFR, Subchapters F, H, J, K and P, as determined by the OCMI. (Those vessels coming under Subchapter K classification are hence termed "K-boats").

Vessels Carrying Freight for Hire

b. A T-boat may carry freight for hire, provided that:

(1) None of the cargo is prohibited from carriage on passenger vessels under 49 CFR, Subchapter C (Hazardous Materials);

(2) Sufficient space is provided for the number of passengers carried;

(3) The vessel's stability is not endangered;

(4) The vessel is not overloaded;

(5) Passenger emergency escapes and access to emergency systems are not blocked; and

(6) Passengers are notified of the presence of any dangerous articles or of any other conditions or circumstances that would constitute an element of risk.

Hazardous Materials

c. All Subchapter T vessels are subject to the HMTA (U.S.C. 1801-1812) when carrying hazardous materials. For the purposes of 49 CFR, a vessel is a "cargo" vessel when carrying 16 or less passengers. When carrying more than 16 passengers, Subchapter T vessels are "small passenger" vessels.

Foreign Vessels

d. A vessel of a foreign nation party to the 1974 International Convention for the Safety of Life At Sea (SOLAS), and to the 1978 Protocol to the convention, that possesses a valid Passenger Ship Safety Certificate or Exemption Certificate shall be examined at least annually. If in compliance with requirements of the convention, it shall be issued a Control Verification for Foreign Vessel (Form CG-4504). A Canadian vessel possessing a valid Canadian Certificate of Inspection (COI) shall be examined at least annually. If in compliance with the terms of its COI, it shall be issued Form CG-4504 (see chapter 20 of this volume). Foreign vessels not possessing SOLAS certificates that meet the applicability requirements of Subchapter T shall be inspected and certificated in the same manner as are U.S. vessels.

Vessels Propelled by Sail

e. A "sail vessel," for purposes of Subchapter T, is a vessel that is propelled entirely by sail. A vessel with sails that also has means of steam, mechanical, or electrical propulsion shall not be considered a "sail vessel."

Temporary COIs

f. Form CG-854 shall be used as on other inspected vessels. Pending receipt of new Forms CG-854, reference to "46 U.S.C. 399" in the first paragraph should be changed to "46 U.S.C. 3309(b)."

Accepted Classification Society Standards

g. The American Bureau of Shipping (ABS) and Lloyd's Register of Shipping are currently the only classification societies whose standards of construction and equipment have been accepted by the Commandant relative to vessels inspected under Subchapter T.

Life Ring Buoys

h. Previous specifications for life ring buoys in 46 CFR 160.009 and 160.050 required marking as follows: "For use on motorboats not carrying passengers for hire." These specifications have now deleted the requirement for such markings. Life ring buoys already manufactured shall not be disapproved on the basis of such markings.

Spare Fuel for Outboard Motors

i. Under the authority of 46 CFR 147.4, certification has been given by the Commandant for the on-deck stowage of spare gasoline on T-boats. This applies to vessels that are propelled by outboard motors, as well as vessels carrying tenders, launches, etc., that are propelled by outboard motors. This certification is contingent upon the following conditions:

(1) The gasoline must be carried in steel containers with a capacity not exceeding 23 liters (6 gallons), constructed so as to have a built-in ullage space.

(2) Such containers must be of at least 20-gauge, welded steel construction built to withstand an internal pressure of 25 psi.

(3) Containers shall comply with the American Boat and Yacht Council, Inc. (ABYC) H-25 standard for portable fuel systems and portable containers for flammable liquids.

(4) Containers must be stowed in a rack on deck as far as possible from areas normally transited by passengers, to facilitate effective firefighting. Particularly, they must be stowed away from ventilation intakes and sources of ignition. The stowage arrangement must be approved by the OCMI.

(5) Fire extinguishing devices and their locations shall be approved by the OCMI.

(6) A maximum of 10 gasoline containers may be stowed aboard the vessel at any time.

(7) "No Smoking" signs must be prominently displayed in the container stowage area.

(8) Empty containers must be handled and stowed with the same care as full containers.

(9) The vessel's COI must be endorsed to reflect the stowage of gasoline containers aboard.

Final authority to authorize such carriage of gasoline rests with the OCMI. It should be granted only after the vessel's owner documents a bona fide need for the extra fuel and meets all the control conditions.

Radiator or Air Cooled Engines

j. Radiator or air cooled engines are prohibited by 46 CFR 182.15-10. This regulation was the result of a past ABYC standard to discourage the use of standard-type automobile engines, which had proven unreliable. The ABYC now permits air or radiator cooled engines provided that there is adequate ventilation for the engine. A departure from this regulation is authorized for well protected and ventilated engines, provided that a temperature alarm and remote indicator are installed. Section 182.15-10 will be revised to reflect this change in policy.

SOLAS 74

k. For Application of SOLAS 74, see MSM II-E2.

MSDs

l. For information on Marine Sanitation Devices (MSDs), see MSM II-C2 regarding installation of MSDs.

4. Control of Unseaworthy Vessels

An uncertificated T-boat may be sold to a party who wishes to carry more than six passengers without having it inspected and recertificated, whether in ignorance or intentional disregard of the inspection statutes and regulations. This could result in operation of an unseaworthy vessel that subjects its passengers and crew to potential hazards. Therefore, upon voluntary surrender or withdrawal of a T-boat's COI, the OCMI shall notify the owner, in writing, that:

a. The vessel may not carry more than six passengers unless it is inspected and certificated for passenger service.

b. If the vessel is disposed of by sale, transfer, or other means, the former owner should inform the buyer of the obligation to obtain a valid COI before operating the vessel with more than six passengers. The former owner should notify the OCMI of the transaction within 48 hours, providing the name and address of the new owner.

c. Continued operation or use of the vessel, for any purpose, in an unseaworthy condition may constitute "negligent operations" under 46 U.S.C. 2302, and may subject the owner to civil or criminal penalties.

ACTION GUIDANCE: Notification may take the form of the sample letter found in Figure B4-1. A copy of the notification shall be placed in the vessel's file. If the vessel is documented, a copy shall be forwarded to the vessel's port of documentation. OCMIs shall maintain a monitoring program for all T-boats within their zones that are determined to be unseaworthy. Local Coast Guard and CG Auxiliary units should be advised of the names of such vessels. To assist inspectors and Auxiliary Courtesy Examiners, T-boats are required to display a Certification Expiration Date sticker in a readily visible location near the boarding area (see paragraph A.7).

FIGURE B4-1
SAMPLE WRITTEN NOTICE TO THE OWNER OF A

SMALL PASSENGER VESSEL

[On OCMI's Official Letterhead]

[ADDRESS OF OWNER]

Dear Mr./Mrs./Ms./Sir:

I am writing to you in regard to the small passenger vessel (Vessel Name), Official Number (O.N.), for which our records indicate you are the owner. As you may know, the Coast Guard Certificate of Inspection for this vessel recently (expired/was suspended/revoked) on (Date) for the following reason(s): (Specify). For your own protection, this letter is to inform you of some of the less apparent aspects of small passenger vessel laws and regulations and to ensure that you are aware of certain requirements this situation presents for you.

First, the vessel may not be operated carrying more than six passengers until existing deficiencies are corrected and/or the vessel is inspected and re-certified for passenger service.

Second, if you should sell or transfer your vessel to a new owner, please inform the new owner of his or her obligation to obtain a valid Certificate of Inspection before employing the vessel in the carriage of more than six passengers. I ask that you also inform my Inspection Department, within 48 hours, of any change of ownership and provide the name and address of the new owner.

Finally, you should be aware that operating a vessel in an unseaworthy condition may constitute negligent use under Federal Law (Title 46, United States Code, Section 2302), and could subject you to civil or criminal penalties.

A copy of this letter has been placed in the vessel's file at this office (and a copy forwarded to the vessel's port of documentation). If you should have any questions, please do not hesitate to contact my Inspection Department at the telephone number listed above

Sincerely,

(Signature)
(Title)

5. Charters of Small Passenger Vessels

Demise or "Bareboat" Charters

a. The following guidance is intended to be helpful in determining whether a vessel under a purported demise, or "bareboat," charter is subject to inspection. Often, information is received from third parties that must be verified before such a decision may be made. An effort should be made to discuss each case with the vessel owner to learn the details of the owner's operation, to inform the owner of the requirements of a valid bareboat charter, or to clarify Coast Guard enforcement policy, if necessary. OCMI's shall refer to the district commander all cases that cannot be clearly determined initially, deferring action pending the district commander's determination.

Background

b. The law that requires the inspection and certification of small commercial passenger-carrying vessels was enacted on May 10, 1956, by a Congress gravely concerned over several marine casualties involving loss of life on uninspected vessels that were carrying passengers for hire. Three of the most tragic incidents were the sinkings of the motor vessels JACK and PELICAN off Long Island, in separate incidents in 1951, and the loss of the sailing vessel LEVIN J. MARVEL in Chesapeake Bay in 1955. These casualties resulted in the combined loss of 70 lives. The legislative history of the Act (now codified in Title 46, U.S.C.) reflects the will of a Congress determined to lessen the assumption of needless risks by private citizens who are carried aboard small passenger vessels.

Demise Charter Concept

c. The concept of bareboat, or demise, chartering of vessels has developed in admiralty law as a legitimate means of transferring the rights of ownership of a vessel to a charterer for a period of time. At the time of the drafting of the Act of May 10, 1956, demise charters were seldom used by private firms, in favor of other more convenient and less risky charter agreements such as the time charter. Their use was most often made by the federal government as a device for acquiring necessary merchant vessel tonnage in times of war and emergency. During World War II, the government took over and operated, directly and through "general agency agreements," many privately owned ships. Rather than condemn and pay for such a ship, the government frequently used the device of taking it on demise from the private owner. Virtually all bareboat charters were made for a period of time that exceeded a single voyage. Considering the motivating factors behind the Act and the way in which bareboat charters were commonly used at the time of its drafting, it is doubtful that the Congress intended to create a specific exemption from inspection for private yachts being bareboat-chartered to carry large parties of passengers on pleasure cruises. This practice has, however, become fairly common in recent years, and has withstood most legal challenges when all of the requirements of a valid bareboat charter are complied with. Such a charter, although it may expose the charterer to considerably higher risk than the charterer would assume as a passenger aboard an inspected vessel, is a legitimate option the charterer has the freedom to choose.

Enforcement

d. The Coast Guard's enforcement role in this specific area is then limited to ensuring that charters that purport to be bareboat, in fact are. Some vessel owners are unaware or have been misinformed of the requirements for a valid bareboat charter. Others attempt to create the appearance of a bareboat charter to avoid the perceived expenses and inconvenience of Coast Guard inspection. Many of these persons never ask the local marine safety office (MSO) or marine inspection office (MIO) what would be required to meet the small passenger vessel rules. In fact, the cost and inconvenience in many cases is considerably less than might be thought.

Evaluations of Charters

e. The decision as to whether or not a valid bareboat charter exists is not a subjective one. The necessary conditions of bareboat charters have been fairly well standardized, with the most significant and difficult test being that of "control." The owner must give up his or her vessel "pro hac vice" (for the occasion) as a complete demise, turning over the incidents of ownership to the charterer: this includes complete management, control, and operation. Some yacht owners are reluctant to give charterers such complete control. Nevertheless, failure to do so creates an invalid bareboat charter. Likewise, any payment of consideration by the guests of the charterer, either to the charterer or the owner, would result in the guests being considered passengers for the purpose of the inspection statutes. To determine accurately if a bareboat charter is valid, it is necessary to evaluate not just the terms of the agreement between the parties, but also the operation itself. It is not uncommon for the two to be leagues apart. In other cases, the charter may be fully in accordance with the agreement, which is itself faulty. For this reason, the evaluation process sometimes requires boarding a vessel while underway so that investigating officers may obtain first-hand information.

Elements of Valid Bareboat Charters

f. The following provisions are indicative of a valid bareboat charter. Note that a valid bareboat charter does not necessarily require that all of these elements be present. Each arrangement must be evaluated on its own standing:

(1) Although a master or crew may be furnished by the owner, full possession and control must be vested in the charterer (a provision requiring the charterer to be guided by the advice of the furnished master or crew, in regard to technical matters or navigation, is acceptable);

(2) The master and crew are paid by the charterer;

(3) All food, fuel, and stores are provided by the charterer;

(4) All port charges and pilotage fees are paid by the charterer;

(5) Insurance is obtained by the charterer, at least to the extent of covering liability not included in the owner's insurance. A greater indication of full control in the charterer is shown if all insurance is carried by the charterer (of course, the owner retains every right to protect his or her interest in the vessel);

NOTE: Any provision that tends to show retention of possession and control (including basic navigation) by the owner or the owner's representative should be carefully examined to see if it contradicts the claim to have created a bareboat charter.

(6) The charterer may discharge, for cause, the master or any crewmember without referral to the owner; or

(7) The vessel is to be surveyed upon its delivery and return.

6. Cable Ferries

On 25 July 1922, the Acting Solicitor of the Department of Commerce rendered an opinion regarding a vessel operated as a double-ended ferry. The vessel had two drums aboard for endless cable that was rigged onshore at each side of the river; the vessel was thus pulled back and forth by machinery. This vessel was determined to be "propelled by machinery" and thus subject to inspection under 46 U.S.C. Chapter 33.

7. Railing Installations

Case History

a. A recent casualty has indicated a need for particular attention to railing installations on T-boats. The vessel involved was a 95-foot party fishing boat, with 63 persons aboard. In a moderate sea, the vessel rolled to starboard and all passengers on that side of the vessel leaned or fell heavily upon the railing at the same time. The railing gave way and nine persons fell overboard. Fortunately, all were recovered and no injuries were sustained. The vessel had been inspected 7 months prior to the casualty. Subsequently (not as a requirement of the inspection), the owner replaced the aluminum railing sockets without the OCMI's knowledge or approval. The replacement sockets were not of a type accepted for marine use, and when installed and painted the material type was not readily discernible. The failure of these aluminum sockets was determined to be the primary cause of the casualty.

Inspection Requirements

b. During inspection of a T-boat, the inspector shall question the owner or the owner's representative as to any repairs that have been made or are anticipated. The requirement for such repairs or alterations to be made only with the OCMI's approval shall be emphasized. All railings shall be examined visually to identify defects or material problems, then given an appropriate test of their ability to withstand the cumulative load of persons who may rely upon it for support. Prior to this casualty, moderate shaking of a railing installation had been regarded as sufficient, in the interest of avoiding costly, inspection-related repairs. However, the casualty cited above demonstrated that railings may periodically be required to withstand a cumulative, instantaneous lateral force from a large number of people. Although a destructive test is not desired, the inspector shall be satisfied that a similar casualty is not likely to occur.

8. Inspection of Shell Plate Butt Welds of Aluminum T-Boats

In 1996, during routine drydocking examinations of several aluminum T-boats constructed in a southern Louisiana shipyard, circa 1990, inspectors discovered that the edges of the shell plate at the joints had received no edge preparation (i.e, square butts). This lack of proper edge preparation precludes any chance for consistent full penetration welds to be achieved. The particular builder has constructed over 400 aluminum boats since 1969, many of which remain in current service with no known history of structural failure due to the poor welding detail. It is further believed that this phenomenon is not restricted to this single builder but is probably common place in aluminum boats constructed by other U.S. yards on the Gulf Coast.

Due to the method of fit-up, welding and lack of back gouging, a lack of fusion line exists within the weld and is not readily apparent from visual inspection. Existence of this lack of fusion was confirmed by x-rays of the shell welds.

Prior to these discoveries, this type of fit-up and welding, though not generally deemed to be good marine practice, was not widely discouraged by the Coast Guard. While not considered acceptable from a technical standpoint, it has nonetheless proven its serviceability over time. However, a recent review of this detail by Commandant (G-MSE-2) personnel suggested that while it may not cause immediate catastrophic structural failure of the hull, the long ten-n effects of fatigue, to which aluminum is particularly susceptible, may affect the long-term durability of the hull to resist inherent fracturing while in service or from some mechanical impact damage.

As previously mentioned, there is no readily apparent failure history which warrants a complete reweld of the hull solely because it was constructed with lack of attention to good marine practice. To preclude future occurrence of this problem, specific policy for shell plate welding in new construction has been established in MSM II-A5.5.C.7 of this Volume. When considering the risk to existing aluminum vessels, the short interval longitudinal and transverse stiffening required by NVIC II -80, plus their proven in-service record, and excellent durability, obviate the need for immediate drastic repairs.

To standardize inspection procedures and to minimize the potential for future failures, the following actions shall apply to all aluminum T-boats in service, especially those fabricated in Gulf Coast shipyards.

a. All vessels shall be subject to a mandatory annual internal structural examination in conjunction with regularly scheduled inspections for the purpose of determining if butt and scam welds are being adversely affected by subsurface defects and discontinuities.

b. Careful attention shall be paid to the condition of the longitudinal and transverse structural members and their weld attachments to the shell plate. Any fractures to these welds shall be documented and repaired immediately.

c. The use of non-destructive testing, particularly X-rays, for the sole purpose of identifying lack of full penetration welds is discouraged.

d. Any subsurface discontinuity which results in an in service structural failure, or has been exposed by mechanical damage, shall be gouged to good metal and rewelded in accordance with the procedures set forth in the American Bureau of Shipping (ABS) Rules for Building Aluminum Vessels (I 975), Chapter 30 Section 30.7. or Lloyd's Rules and Regulations for Classification of Yachts and Small Craft, Part 2, Chapter 3, dependent on the standard originally used to meet the structural design requirement of 46 CFR 177.300.

e. Surface discontinuities, such as porosity stemming from new construction, should be accepted as is, unless it is determined that it is being caused by electrolytic corrosion.

f. A notation will be made in the MSIS data for each vessel to ensure that the annual examination requirement is followed. Additional MSIS entries shall be made concerning the discovery of structural failures and their repairs.

9. Public Awareness

General

a. The general public is typically unaware of the Coast Guard's requirements for small passenger vessels. It is for this reason that an aggressive public information program is considered necessary, particularly in zones in which a large number of this type of vessel operates. A primary means of conveying information to the public is publication of a marine safety newsletter. An information package that can either be mailed out in response to telephone inquiries or handed out during personal visits from the public is another convenient method of distributing information.

Certification Expiration Date Stickers

b. 46 CFR 176.01-45 requires T-boats to display certification expiration date stickers. This requirement is intended to increase public awareness of vessel inspection requirements and to encourage the public to favor T-boats that indicate that they meet those requirements. Stickers shall be provided by the inspector after the inspection for certification, or at any time that the inspector determines them to be necessary to meet the intent of the regulations (the federal stock number for these is 7530-01-GF2-8620). The stickers are designed so that the expiration date of the COI can be punched in the date block at the bottom with a standard one-hole punch. Expired stickers and those on vessels whose COI's are surrendered or revoked shall be removed. OCMI's shall provide punches and scrapers to marine inspectors as needed.

B. EXCURSION VESSELS

1. Definition

An "excursion vessel," as referred to in 46 CFR 2.01-45, 72.40-5 (c), and 177.35-1(c), is a passenger vessel that engages in short cruises for special events or recreational purposes. The operation of an excursion vessel is chiefly seasonal and normally involves the carriage of deck passengers.

2. Permit to Carry Excursion Party, Form CG-949

When such operation is not permitted under the vessel's normal COI, Form CG-949 may be issued under 46 CFR 71.10 or 176.01-30, as applicable. This is the case when a passenger vessel is permitted to carry additional passengers or to operate on an extended route, or when a cargo or miscellaneous vessel is permitted to carry recreation parties on a 1-day basis. The permit shall be issued for a limited time, and shall be considered a temporary supplement to the COI only. An excursion permit shall not be used to circumvent inspection requirements. Instructions on the issuance of Form CG-949 are contained in chapter 3 of this volume.

3. Conditions of Permits

The OCMI shall determine the maximum number of additional passengers that may be carried, the number and type of lifesaving appliances that must be provided, and the limitations of route, etc., for a vessel to engage in an excursion as provided in 46 U.S.C. 2113. Inspection of the vessel prior to issuance of Form CG-949 shall be equivalent to reinspection of a passenger vessel. Particular attention shall be given to lifesaving and firefighting appliances. The applicable minimum stability and fire safety standards shall not be waived or relaxed in any case.

4. Passenger Capacity

The number of passengers normally permitted on excursion vessels shall be governed by 46 CFR 176.01-25. Vessels that do not comply with structural fire protection requirements of 46 CFR 177.10-5 shall not carry more than 150 passengers. For those vessels inspected under 46 CFR, Subchapter H (Passenger Vessels), there are no specific limitations of the number of passengers permitted (other than stability and subdivision criteria). To obtain some degree of uniformity in the application of the regulations, the criterion of one passenger for every 10 square feet of deck space shall be used as a guide in determining the number of passengers permitted.

5. Operational Limits

The number of passengers and the route permitted for a vessel engaging on a temporary excursion shall be limited to an operation that the OCMI believes can be safely undertaken. Careful consideration of possible downflooding (interior flooding of a vessel from the decks or over the gunwale) shall be given in permitting an excursion route different from that which appears on the COI. Likewise, stability of the vessel must always be considered.

C. CARGO VESSELS

1. Carriage of Passengers (Persons in Addition to the Crew).

Requirements for Notice to Passengers

a. Under 46 U.S.C. 3304, the owner, charterer, managing operator, agent, master, or individual in charge of a cargo vessel shall notify all passengers of the presence aboard of any dangerous articles, or of any other condition or circumstance that would constitute a risk of safety for the passengers or crew, prior to sailing. Accordingly, all persons other than members of the crew and military personnel carried (either under waiver or otherwise) must be given this notice. Failure to give such notice renders the owner, charterer, managing operator, agent, master, or individual in charge subject to a civil penalty of not more than $1,000, for which the vessel is liable in rem (see 46 U.S.C. 3318(h)).

Operation upon Examination

b. A cargo or tank vessel shall be examined to ensure that it complies with the laws and regulations relative to lifeboats, life preservers, and other lifesaving equipment before it may carry persons in addition to the crew. After a satisfactory examination, authority to carry up to 16 persons in addition to the crew on domestic voyages, and up to 12 persons in addition to the crew on international voyages, may be granted by issuing a COI Amendment or by a special endorsement on the COI.

2. Subdivision

The 1966 Load Line Convention allows deeper drafts for those cargo vessels (other than tankers) that qualify as one or two compartment subdivision vessels. The determination and assignment of a load line is a function delegated to ABS. Therefore, when a deeper draft is allowed due to subdivision consideration, inspections for certification and reinspections must be conducted with the object of proper maintenance of bulkheads, closures, etc., essential to the preservation of the applicable subdivision criteria (see volume IV of this manual).

3. Equivalents Filed with the International Maritime Organization (IMO)

➔ See MSM II, Section E, Chapter 2 (MSM II-E2).

4. Carriage of Combustible Liquids in Bulk Aboard Vessels

General

a. Vessels certificated as passenger, cargo, or miscellaneous vessels may carry limited quantities of flammable or combustible liquid cargo in bulk in accordance with 46 CFR 30.10-5, 70.05-30, and 90.05-35. However, the carriage of such cargo may not be the principal purpose or use of such vessels. "Limited quantities" shall not exceed 20 percent of the vessel's deadweight tonnage, as applied to bulk liquid cargo or that carried in integral or independent tanks. The OCMI must determine on a case-by-case basis that the vessel's "principal purpose" is not the carriage of liquid bulk cargo.

Carriage Aboard Barges

b. Cargo barges certificated under Subchapter I may not carry flammable or combustible bulk liquid cargoes in any quantity. Barges carrying such cargoes shall be considered tank barges and must meet the requirements of Subchapter D. Subchapter I barges may carry fuel for the use of their machinery and, when there is a need for additional fuel on occasional long voyages, fuel for the propelling vessel. This may be done only when a genuine need for the fuel exists and there is no attempt to circumvent the applicable admeasurement or safety regulations.

NOTE: This concept should be applied only for occasional long voyages. If additional fuel is needed on a regular route, a propelling vessel with sufficient fuel capacity of its own should be employed.

Discharge Containment

c. The cargo oil discharge containment requirements of 33 CFR 155.310 shall be applied to Subchapter I vessels, with a capacity of 250 or more barrels, which are carrying oil cargo. The requirements of 33 CFR 156 apply during transfer operations aboard such vessels, but 33 CFR 157 does not apply to vessels certificated solely under Subchapter I.

Carriage of Unusable, Bunker and/or Oil Residue on Vessels Permanently Laid-Up, Dismantled, or Out-of-Commission

d. Bunker oil and bunker oil residue existing in such vessels (i.e., on board at the time the vessel was permanently laid up, dismantled, or placed out of commission and remaining on board) will not be classed as cargo. The condition of the tanks must be acceptable to the OCMI. Additional oil or oil residue cannot be added to any bunker, cargo or independent tanks on a vessel permanently laid up, dismantled, or out of commission (See MSM II-B1.C.11 of this volume).

Carriage of Fuel for the Towing Vessel on Vessels Permanently Laid-Up, Dismantled, or Out-of-Commission

e. The carriage of fuel for the towing vessel on non-certificated vessels permanently laid up, dismantled, or out of commission being towed to scrap is not allowed. A vessel that carries fuel for the towing vessel would need to be inspected and certificated as a tank vessel. It would also need to be issued the appropriate domestic and international certificates.

D. TANK VESSELS

1. Permanently Moored Tank Vessels

General

a. A tank vessel permanently moored at a fixed location to dispense, receive, or store flammable or combustible liquids in bulk may, at the request of the owner, be considered "substantially a land structure" subject to the waterfront facility regulations (33 CFR 126, 154, and 156). To qualify under this terminology, the vessel must be securely and substantially moored by means such as cables, chains, or structural steel to a solid onshore structure. Such mooring arrangements must be approved by the OCMI and must be capable of withstanding wind, ice, and water conditions normally encountered at the location.

Requirements for Notification

b. It is incumbent upon the owner, the owner's representative, or the operator to notify the OCMI before any changes are made in the mooring arrangement or location of the structure. The structure may be temporarily placed in navigation (becoming a vessel again) only with the approval of the OCMI, who may issue requirements as necessary to ensure the safety of the vessel and U.S. waters. The authorization to return the vessel to navigation may be issued by letter, a COI of limited duration, or a Permit to Proceed, as appropriate. When the vessel is re-moored, the OCMI must approve the new arrangement before the vessel may again be considered "substantially a land structure." A ship documented as a vessel of the United States may be considered "substantially a land structure" under this policy under some circumstances (see paragraph MSM II-B4.I.1 below for further discussion of permanently moored structures).

2. Tankships Carrying Grain Cargo

General

a. Study of the modifications needed for a tank vessel to carry grain in bulk in its cargo tanks indicates that ordinarily none of the essential features of a tankship are lost. Sounding pipes are fitted to each tank; the cargo stripping suctions are fitted with burlap-covered roseboxes and made to serve as bilge suctions; a nonreturn valve is installed at the stripping pump suction; the main cargo suctions are blanked off and cement-sealed burlap is installed at each bell mouth; the main cargo header in the pumproom is blanked off; and all cargo valves are closed and locked. Returning the vessel to tanker service requires removal of blanks from the main cargo suctions and manifolds, removal of burlap and cement seals in the cargo tanks after discharge of the grain cargo, and cleaning out of the remnants.

Requirements for OCMI's Evaluation

b. Upon inspection of a tank vessel that has been modified to carry grain in bulk, the OCMI shall determine if the essential features that make the vessel eligible to carry flammable or combustible liquid cargo in bulk have been removed. If not, the COI need not be amended unless this is requested by the owner.

3. Tank Barges Not Carrying Flammable or Combustible Liquids

A barge that has been certificated to transport flammable or combustible Grade D and E liquids may retain its unexpired COI aboard when transporting nonflammable or noncombustible liquid cargoes. However, the barge must at all times comply with Subchapter D requirements.

> **NOTE:** Any changes to the vessel's equipment or construction required by the regulations for transporting other cargoes would automatically make the COI subject to withdrawal.

4. Metal Hoods and Housings

46 CFR 32.35-5 requires a metal hood or housing over pump engines on tank barges, to protect the pump engine against weather and damage during cargo or hose handling. Installations in which metal hoods or housings are unnecessary to provide the desired protection may be accepted, provided the arrangement affords equivalent protection. Each tank barge pump engine installation should be evaluated on its own merits to determine whether installation of a metal hood or housing is necessary.

5. Refinery Waste, Dirty Ballast, Etc.

Barges used for the transportation of refinery waste, residual cargo, or dirty ballast from tank cleaning operations are subject to inspection and certification when they carry flammable or combustible liquids in bulk. The application of 46 U.S.C. 3701 et seq., to vessels other than public vessels is not contingent on the vessel's use in trade or commercial service, as long as the liquid is cargo or residue.

> **NOTE:** When such barges are used to handle flammable or combustible liquids, even if diluted with water, fire and explosion hazards are present and the applicable safeguards contained in Subchapter D must be met.

6. Location of Flame Arresters

In part, 46 CFR 32.55-20(b)(4) states that "The vent header shall be fitted with a flame arrester or pressure-vacuum relief valve." This regulation applies to the venting of tanks transporting Grade A liquid on tankships constructed on or after 1 July 1951. This regulation does not require either the flame arrester or the pressure-vacuum relief valve to be installed at the outlet. Some vessels have installed a pressure-vacuum relief valve in the horizontal deck header, rather than installing this type of valve or a flame arrester at or near the outlet; the Commandant has accepted this arrangement. The required installation of a pressure-vacuum relief valve in the header is in addition to the pressure-vacuum relief valve in the individual branch vent line, which is not mandatory (see 46 CFR 32.55-20(b)(3)).

7. Carriage of Passengers

The provisions of paragraph C.1 above apply to tank vessels as well as to cargo vessels.

8. Unmanned Tank Barge Inspections and Examinations

General Policy

a. Vessels that carry oil or any hazardous materials in bulk as cargo or in residue are required to be inspected or examined at least once annually by 46 U.S.C. 3710. To satisfy these requirements, the Commandant's policy for the inspection of unmanned tank barges is that these vessels will have:

(1) Biennial inspections for certification; and

(2) Annual examinations occurring between the 10th and 14th month after the issue date of the COI.

The biennial inspections for certification shall be conducted by qualified marine inspectors in accordance with chapter 6 of this volume. For unmanned tank barges that are certificated for the carriage of bulk dangerous cargoes under 46 CFR 151, annual examinations (formerly called "midperiods") shall be conducted by qualified marine inspectors. For unmanned petroleum tank barges not certificated for the carriage of bulk dangerous cargoes, annual examinations may be conducted by qualified marine inspectors or port safety boarding teams provided they are qualified to conduct these examinations.

Port Safety Boarding Team Guidelines

b. Port safety boarding teams will, in the course of routine monitoring or boardings, observe most of the items that should be inspected for an annual examination. In conducting an annual examination, a boarding team shall include on its checklist of items to be examined:

(1) An examination of all firefighting and safety equipment on the vessel; and

(2) A visual inspection of accessible parts of the vessel. Particular attention shall be paid to any obvious signs of damage, deterioration, or temporary repairs to the cargo piping, visible hull, flame screens, etc.

When a routine monitoring/boarding of an unmanned petroleum tank barge is scheduled between the 10th and 14th month after the COI is issued, the annual examination may also be conducted by the port safety boarding team. When no discrepancies are found, the boarding team should date and sign the COI. If discrepancies are discovered, they should be rectified per local OCMI guidelines. An entry should be made into the Marine Safety Information System (MSIS) indicating that a reinspection has been done. See also COMDTINST 5010.8.

Local Procedures

c. Commanding officers (CO's) of MSO's should establish local procedures as to when a port safety boarding team will be authorized to conduct an annual examination and endorse the COI on unmanned petroleum tank barges. Local monitoring/boarding checklists should also be modified or established as necessary.

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9. Pressure Vessel Type Cargo Tanks

A review of the records of several tank barges, over 20 years old, that were certificated to carry liquefied gas in pressure vessel type cargo tanks has indicated that their tanks were never hydrostatically tested. Under 46 CFR 38.25-1(b), a hydrostatic test of such tanks may be conducted at any time that an inspector considers it necessary to determine their condition. When a tank barge 20 or more years old becomes due for internal examination, the cargo tanks should be very carefully examined; the desirability of a hydrostatic test should be especially considered.

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10. Trans-Alaska Pipeline Service (TAPS) Tankships

Background

a. Background. The "Report of the TAPS Tanker Structural Failure Study" was published on 25 June 1990. The "TAPS Tanker Structural Failure Study Follow-up Report" was published in May 1991. Both reports addressed the reasons why TAPS tankers experienced a disproportional high number of structural failures compared to vessels in other trades. In order to combat these failures effectively, the principal recommendation of the TAPS study concerned the establishment of Critical Areas Inspection Plans (CAIPS) for all'TAPS tankers. Specific guidance for CAIPs is contained in NVIC 15-91, NVIC 15-91, Change 1 and Section 5.J. of this manual.

Between June 1990 and June 1996, the Coast Guard in partnership with TAPS operators and the ABS have conducted literally hundreds of CAIP examinations of TAPS vessels. While all TAPS vessels.were subject to an annual examination of at least some portion of the cargo block, 16 vessels of which 14 were in three distinct classes, were subject to more frequent examinations due to severe structural problems caused by a combination of a number of factors including but not limited to poor design details, poor construction practices, lack of adequate internal coatings systems, lack of maintenance, age and harsh environmental conditions that stressed hulls and were exacerbated by various operating practices employed prior to the studies.

As of June 1996, only six of these targeted vessels in the ATIGUN PASS 165,000 deadweight ton class remain in existence. Only two of these vessels are currently in service. However, both operators of these vessels, BP America and SeaRiver Maritime, have been very effective in improving original design and construction details to the extent that the special six month interval between CAIPs originally imposed on these vessels is removed and the vessels may be examined under the one-year CAIP interval provided for by NVIC 15-91. The vessels in this class are:

- S.S. ATIGUN PASS
- S.S. THOMPSON PASS
- S.S. BROOKS RANGE
- S.S. KEYSTONE CANYON (downsized to 125,000 dwt in 1990)
- S.S. S-R BENICIA
- S.S. S-R NORTH SLOPE

Definitions

b. Definitions

(1) TAPS Tanker A vessel that transports oil in bulk from Valdez, Alaska to any U.S. or foreign port.

(2) ANS Service Alaska North Slope service. A term designated by the U.S. Department of Commerce for tankers carrying oil in bulk from Valdez to foreign ports. This definition is interchangeable with TAPS.

(3) Cargo Block As applicable to tankers and OBOS, all cargo and ballast tanks between the forward most and after most transverse cargo bulkheads.

CAIP Requirements for TAPS Tankers

c. CAIP Requirements for TAPS Tankers. G-MOC will maintain an MSIS VFSC for CAIP status of TAPS tankers. TAPS tankers will be required to subscribe to CAIP requirements as follows:

Tankers New to TAPS Service

(1) Tankers New to TAPS Service. All tankers initially entering the TAPS trade will be required to establish a CAIP for the full cargo block per NVIC 15-91. Operators may apply to Commandant (G-MOC) for alternative compliance with CAIP requirements per NVIC 15-91, Change 1, 5.b.(2)(d) - (f) but will be subject to a baseline examination by the Traveling inspectors (G-MO-1) prior to G-MOC approval. The CAIP interval will be no longer than one year until a structural history can be developed by the Coast Guard. CAIPs may be performed within the tenth or fourteenth month following the previous CAIP survey.

Existing TAPS Tankers

(2) Existing TAPS Tankers. Tankers that have been in continuous TAPS service are normally subject to annual CAIPS. However, operators may apply G-MOC for relief of certain CAIP requirements on a case by case basis as outlined in NVIC 15-91, Change 1. This includes elimination of certain portions of the cargo block from a CAIP examination or extending CAIP intervals. Favorable approval of these requests will be based primarily on review of the structural failure history which may show the lack of significant problems over time or past structural problems which have permanently been corrected.

Tankers In and Out of TAPS Service

(3) Tankers In and Out of TAPS Service. Circumstances may cause TAPS tanker operators to place vessels on other routes for extended periods. It is not mandatory to maintain the CAIP during this period. However, the vessel must complete a CAIP prior to return to TAPS service if the prescribed interval since the last CAIP has been exceeded.

CAIPs vs. ABS Enhanced Survey

(4) CAIPs vs. ABS Enhanced Survey. Guidelines NVIC 15-91, Change 1 permits TAPS-operators to substitute ABS Enhanced Survey guidelines for CAIPs on a case by case basis. It has been determined that the Enhanced Survey 3'.s equivalent to the CAIP requirements for those vessels that are approved for a normal two-in-five-year internal examination interval which would correspond to the ABS Special Survey and Intermediate Survey requirements. However, the Enhanced Survey requirements do not equate with a CAIP in both scope and depth of examination on an annual basis. Operators must affirm in writing to G-MOC that the Enhanced Survey requirements normally complied with at Special Survey will be performed to satisfy annual CAIP requirements.

TAPS Tankers involved in Export Trade

(5) TAPS Tankers involved in Export Trade. In April 1996, the President signed an authorization allowing export of Alaskan oil to foreign markets. The authorization requires that exporters obtain a special permit from the Department of Commerce to engage in this trade. As a condition of obtaining the permit, the exporter must employ a tanker that is subject to an annual CAIP survey.. Consequently, although NVIC 15-91, Change 1 provides operators to extend CAIP intervals, separate rule making by the Department of Commerce will require those vessels employed in oil export service to undergo a mandatory annual CAIP.

TAPS Tankers Enrolled in the ACP

(6) TAPS Tankers Enrolled in the ACP. Tankers enrolled in the Alternative Compliance Program described in MSM II-A5.E.6 may substitute ABS Enhanced Survey Guidelines for the CAIP examine provided that surveys are performed to the same extent required by the CAIP.

Reports of Structural Failure

(7) Reports of Structural Failure. TAPS operators shall report Class 1 and 2 structural failures in accordance with the procedures outlined in Subsections MSM II-A5.E.3.a and A5.E.9.a. Acceptance of Enhanced Survey requirements in lieu of CAIPs or enrollment of a vessel in ACP does not relieve an operator of reporting responsibility to the cognizant OCMI.

Maintenance of Records

(8) Maintenance of Records. A complete, up to date CAIP shall be required on each TAPS tanker and in the operator's office. A copy of the detailed survey report normally completed to append the vessel CAIP shall be provided to the cognizant OCMI where the survey is performed or where repair work, if required, will be conducted. An executive summary highlighting the CAIP shall be provided to G-MOC for review and forwarding to the Traveling Inspectors for maintenance in the TAPS file. The executive summary should contain the same, but less detailed information, required by enclosure (4) of NVIC 15-91. It is expected that the CAIP update and the executive summary be completed and placed aboard the vessel and forwarded, respectively, within 60 days of the CAIP. The cognizant OCMI shall ensure the vessel's MSIS files are updated to reflect the current CAIP.

TAPS Repair Guidance

d. TAPS Repair Guidance. The hierarchy of repairs described in this section shall be considered as a guideline for repairs whether the fracture is found at the CAIP survey during routine operations.

Class 1 Structural Failures

(1) Class 1 Structural Failures. All such failures must be immediately repaired prior to the vessel being permitted to return to service in accordance with MSM II-A5.E.3. Operators are always required to submit a Coast Guard form CG-2692, "Report of Marine Accident, Injury or Death" whenever a Class 1 failure occurs or is found.

Class 2 Structural Failures

(2) Class 2 Structural Failures. These failures shall be evaluated by the operator in concert with the cognizant OCMI and vessel's class society. Temporary repairs may be authorized. in some cases, if the failure has arrested itself or poses no further chance of propagation, monitoring of the fracture with no repair may be authorized by the OCMI until the next scheduled repair period. No CO-2692 "Ls required to be filed.

Class 3 Structural Failures

(3) Class 3 Structural Failures. Repair of Class 3 failures may be held in abeyance to the next regularly scheduled repair period at the discretion of the operator. Repair of a Class 3 failure may be deferred and monitored if the OCMI determines that the repair would actually create a bigger problem such as expanding the heat effected zone between the weldment and base metal and causing additional stresses to be concentrated into a design detail.

Temporary vs Permanent Repairs

(4) Temporary vs Permanent Repairs. It is imperative that OCMIs consider all past approved repair procedures which have been effective in service in order to ensure consistency between zones. It is also important that the root cause of any structural failure be determined or understood prior to approving a repair as either "temporary" or permanent." The primary goal of the CAIP guidelines is to prevent reoccurrence of structural failures and not simply just to address the end result of the root cause of the problem. The terms "temporary" and "permanent" can have multiple meanings that are clarified as follows:

(a) For Class 1 structural failures, temporary repairs mean emergency measures taken to allow a vessel to safely transit to a port or facility to effectively evaluate the failure and accomplish permanent repairs. In no case will a vessel be continued in service under the terms and conditions of the Certificate of Inspection, solely with these repairs, beyond the singular voyage to a discharge port and/or repair facility.

(b) For Class 2 and 3 structural repairs, temporary repairs mean measures taken to prevent a structural failure from propagating to the next higher class. Generally, it is intended that these measures need suffice only to the next regularly scheduled repair period when "permanent" repairs could be effected. However, past history has shown that in many cases, these "temporary" measures have satisfactorily arrested the cause of the failures. At the request of the operator, the OCMI should evaluate their effectiveness and may accept them as permanent, if warranted. In such cases, a CG-835 noting the temporary repair and requiring a subsequent permanent repair may simply be written off as completed, accordingly.

(c) For all three classes of failure, permanent repairs should not be necessarily construed as "repairs in kind." Structural failures resulting from a poor design detail will recur if that detail is restored as original. Much of the success realized to date in curtailing numbers of TAPS structural failures has resulted from improving design details. However, unless it is ascertained that a certain repetitive type fracture could reach critical proportions, it is acceptable to permit repair by traditional means such as "veeing" and welding. It should be recognized that structural repairs could be an iterative process, that is, several "permanent" repairs may be proposed and accepted before a modification is successful in preventing recurring fractures.

Repair Guidance

(5) Repair Guidance. Guidance on previously approved repairs can be obtained from numerous sources including but not limited to:

(a) The vessel's CAIP

(b) Traveling Inspectors (G-MO-1) files

(c) Classification society files

(d) "Guidance Manual for the Inspection and Condition Assessment of Tanker Structures" published by the international Chamber of Shipping.

E. SEAGOING BARGES

1. Introduction

46 U.S.C. 2101(32) and 3301(6) require hull and equipment inspections of every seagoing barge that is either manned or carries hazardous materials, flammable/combustible liquid including oil in bulk as cargo. However, any barges transiting beyond the boundary line, are either 79' or greater (for new vessels), or $\geq$ 150 GT (existing vessels) are required to have a valid Load Line Certificate. A certificated barge is subject to inspection requirements until the COI is surrendered or expired, even though it may be operated for part of the time in inland waters.

2. General Inspection Provisions

Operation on the High Seas

a. Only those vessels which are manned or carry hazardous materials, as noted in paragraph 1, above, are required to be inspected and certificated.

Plan Approval

b. Complete plan approval is required for all vessels contracted for on and after 1 January 1964; plans shall be submitted in accordance with 46 CFR 91.55.

Acceptance of Alternate Arrangements

c. The basic inspection requirements for these vessels are contained in 46 CFR, Subchapter I. It is the Commandant's policy that the OCMI construe the intent of the regulations liberally, while ensuring that the vessel can be navigated safely. Any unusual condition or feature of the vessel that is accepted by the OCMI at the initial or subsequent inspections shall be made a matter of record, so that it will not be questioned at a later date.

Load Lines

d. See 46 CFR, Subchapter E and volume IV of this manual for load line requirements. Barges over 79 feet in length which transit beyond established boundaries shall require load lines. If a load line assignment is not required, draft limitations may be imposed as a prerequisite to obtaining a COI when the OCMI judges them to be necessary for the safety of life and property.

NOTE: Recent revisions to the statutory language governing loadline requirements in 46 USC §5102 have eliminated the exemption opportunity vessels previously enjoyed from the wording in 46 CFR §42.03-5(b)(v). This revision makes load lines mandatory for all vessels which transit beyond the boundary line, including vessels conducting round-trip domestic “coastwise” voyages without visiting another U.S. port—so called “voyages to nowhere.” Until the regulations in Title 46 CFR are revised, this guidance shall hold as the Coast Guard enforcement policy on loadline requirements for vessels transiting beyond the boundary line, regardless of whether or not another port is visited during that voyage.

Lifesaving Equipment

e. When seagoing barges are manned, whether manning is required or permitted, the requirements of 46 CFR 94 apply. The regulations permitting substitution of inflatable life rafts may be applied. However, barges that do not sail more than 20 miles from a harbor of refuge and return to that harbor may be equipped with lifefloats or buoyant apparatus, in lieu of lifeboats or inflatable life rafts.

Manning requirements

(1) Certain barges may be unmanned if so authorized by the OCMI. However, if a crew is required by the OCMI:

(a) 75 percent of the crew must be citizens of the U.S., if the barge is documented and whenever departing a port of the U.S. (see 46 U.S.C. 8103);

(b) 65 percent of the deck department, exclusive of licensed personnel, must be able seamen as defined in 46 U.S.C. 8702 (This may be reduced to 50 percent on vessels permitted to have a 2-watch system.);

(c) On barges over 100 GT, all crewmembers must possess a Merchant Mariner's Document (MMD); and

(d) The watch system applies.

Permit Manning

(2) When the OCMI does not require the presence of a crew, one may be permitted, provided that:

(a) Persons carried as maintenance persons shall have no duties connected with navigation. A sample endorsement that may be used on the COI is:

> *"Certificated without a navigating crew. The vessel may carry one person as maintenance person and operator of the dumping mechanism, with no duties connected with the navigation of the vessel."*

(b) 75 percent of the personnel of the "permitted" crew are U.S. citizens, if the barge is documented and whenever departing a port of the U.S. (see 46 U.S.C. 8103); and

(c) On barges over 100 GT, all crewmembers possess an MMD.

3. Wooden Barges

Particular attention should be given to the inspection of seagoing wooden barges. If such a vessel is not in drydock at the time of its inspection, a thorough examination of the structure shall be made, insofar as possible. To this end, the ceiling may be lifted for examination of the framing as the marine inspector deems necessary. Should doubt as to the soundness of the structure remain, the vessel should be drydocked for further examination.

4. Non-Self-Propelled Harbor Dredges and Barges; Change Places of Employment

General

a. Non-self-propelled harbor dredges and barges of 100 or more GT, when voyaging on the high seas to change places of employment, are subject to inspection and certification. 46 CFR 91.01-10(c) provides for a limited or short-term certificate, by which the vessel may be operated manned or unmanned. In those cases when the vessel is manned, the intent is to require a more thorough inspection than if it were unmanned.

Plan Approval

b. Plan approval is not required for the certification of such vessels.

Inspections

c. The basic requirements for inspection of such vessels are contained in 46 CFR, Subchapter I. It is the Commandant's policy that in applying the regulations, the OCMI's construe their intent liberally, bearing in mind the overall responsibility to ensure that the vessel can be navigated safely.

Load Lines

d. See volume IV of this manual. When such vessels are not required to have a load line, the inspector shall ensure that there are adequate closures to maintain watertight integrity for the duration of the voyage. Draft limitations may be imposed as a prerequisite to obtaining a COI if the OCMI judges them to be necessary for the safety of life and property. Non-self-propelled dredges may carry spare parts for their own machinery without having them considered as cargo, if the OCMI judges the quantity and weight of such spare parts to be reasonable.

Lifesaving Equipment

e. When vessels are manned, whether manning is required or permitted, the requirements of 46 CFR 94 apply. Substitution of inflatable life rafts may be permitted.

Boilers

f. Some such vessels are equipped with boilers. When these boilers will be used during the voyage, they shall be given such operating tests and examinations as the OCMI deems necessary to ensure their proper functioning throughout the voyage. When these boilers will not be used during any part of the voyage, they will not be inspected (in any case, unsafe or unsatisfactory conditions shall be made a matter of record and the owner of the vessel so advised in writing by the OCMI).

Wiring

g. Only the electrical wiring that will be energized during any part of the voyage shall be subject to inspection. Any unsafe or unsatisfactory condition detected shall be made a matter of record and the owner of the vessel so advised in writing by the OCMI.

Drydocking

h. Drydocking: Domestic & Foreign Voyage Vessels

(1) *Foreign Voyage.* A drydock examination of the underwater hull and outboard fittings of such vessels is a prerequisite to issuance of a COI, unless there is a record of a satisfactory drydock examination within the preceding 18 months.

(2) *Domestic Voyage.* The OCMI shall normally require a drydock examination unless there is acceptable evidence presented of a satisfactory drydock examination within the past 3 years.

Manning

i. Manning: Required and Permitted

(1) *Required Manning.* Such vessels may be towed unmanned if authorized by the OCMI. However, if a crew is required by the OCMI:

(a) 75 percent of the crew must be citizens of the U.S., if the vessel is documented and whenever departing a port of the U.S. (see 46 U.S.C. 8103);

(b) 65 percent of the deck department, exclusive of licensed personnel, must be able seamen (for seagoing barges);

(c) On vessels over 100 GT, all crewmembers must possess an MMD; and

(d) The watch system applies (on voyages up to 600 miles only a 2-watch system is necessary).

(2) *Permitted Manning.* When the OCMI does not require a crew on such vessels, one may be permitted, provided that:

(a) Persons carried as maintenance persons have no duties connected with navigation. A sample endorsement that may be used on the COI is:

> *"Certificated without a navigating crew. The vessel may carry persons as maintenance persons with no duties connected with the navigation of the vessel."*

(b) 75 percent of the personnel of this "permitted" crew are U.S. citizens, if the vessel is documented and whenever departing a port of the U.S. (see 46 U.S.C. 8103); and

(c) On vessels over 100 GT, all crewmembers possess an MMD.

5. Barges Operated on Sheltered Waters of British Columbia

Barges of 100 GT and more making voyages on sheltered waters of British Columbia, defined in a U.S.-Canadian treaty of 26 July 1934 as "The waters of Puget Sound, the waters lying between Vancouver Island and the mainland, and east of a line from a point one nautical mile west of the city limits of Port Angeles in the State of Washington to Race Rocks on Vancouver Island, and of a line from Hope Island, British Columbia, to Cape Calvert, Calvert Island, British Columbia, the waters east of a line from Cape Calvert to Duke Point on Duke Island, and the waters north of Duke Island and east of Prince of Wales Island, Baranof Island and Chicagof Island, the waters of Peril, Neva and Olga Straits to Sitka, and the waters east of a line from Port Althorp on Chicagof Island to Cape Spencer, Alaska. . ." should not be inspected as seagoing barges.

6. Towing of Vessels to be Scrapped

➔ See MSM II, Section B, Chapter 1.

7. Ship Hulls used as Seagoing Barges

Ship hulls operated under the U.S. flag as seagoing barges to deliver cargo and scrap to foreign countries are subject to the following minimal requirements:

a. The vessel must comply with the regulations governing cargo stowage and securing arrangements. Approval by the National Cargo Bureau, Inc. (NCB) of these arrangements may be accepted as prima facie evidence of compliance.

b. A load line is required.

c. Inspection is required (including a drydock examination if necessary), followed by certification as a seagoing barge.

d. Should the vessel be manned, the following manning and equipment requirements are applicable:

(1) The vessel shall be manned by a master and at least six mariners;

(2) Sufficient primary lifesaving equipment for all persons on board is required; a lifeboat (carried in such a manner that it may be readily launched) or life raft is acceptable;

(3) Means for pumping bilges and discharging normal amounts of bilge water shall be provided;

(4) Provision should be made to supply electric power, when applicable to loads covered by 46 CFR 112.15; and

(5) Sufficient firefighting equipment should be provided to cope with any fire that may be anticipated during the voyage.

NOTE: For operations under a foreign flag, the vessel must possess a valid Load Line Certificate. Requirements other than these shall be imposed by the vessel's home administration or insurance underwriters, etc., not by the Coast Guard.

8. Inland Tank Barge Pressure Vacuum (PV) Valve Requirement (46 CFR 39.20-11)

The regulation requires that cargo tank PV valves be set not lower than 1 psig and 0.5 psig on the vacuum side. Some inland tank barge cargo tanks are not structurally designed for pressures and vacuums. During Vapor Control System (VCS) plan review, these barges were approved by the Coast Guard with PV valves set below those required by 46 CFR 39, to protect the structure of the barge.

a. The lower P/V valve settings have resulted in problems being encountered by some facilities attempting to conduct VCS operations with these barges. The problems may range from very slow transfer rates, to the inability to conduct transfer. Provided transfer procedures are followed, these are operational, not safety issues, since the tank venting system still serves to protect the cargo tanks from over/under pressurization during VCS operations. Vessel operators may continue to operate with these P/V valve settings if they so desire. However, if the owner/operator decides to upgrade the pressure settings or if the barge is displaying obvious signs of over-pressurization, then additional plan review or approvals may be necessary.

b. The Marine Safety Center (MSC) will enter PV valve settings in the MSIS (Vessel File Cargo Systems product set) for all future planned reviews of VCS. OCMIs shall make these entries for those not made by MSC and verify the PV valve is approved for the set pressures during routine scheduled inspections.

F. MOBILE OFFSHORE DRILLING UNITS (MODUS)

1. Introduction

MODUs are inspected and certificated under 46 CFR, Subchapter I-A. Subchapter I-A requires an inspection for certification every 2 years and a reinspection between the tenth and fourteenth month after issuance of the certificate. MODUs operating on the U.S. Outer Continental Shelf (OCS) are required to have annual onsite inspections, in accordance with the OCS Lands Act Amendments of 1978 (43 U.S.C. 1331, et seq). Self-propelled MODUs of 500 or more GT engaged in international voyages are subject to the requirements of SOLAS 74/78. These units have the option of compliance with SOLAS or with the IMO MODU Code. U.S. flag MODUs are subject to Coast Guard inspection requirements any time the vessel is operating (46 U.S.C. 3311). Therefore, unless "laid-up," a U.S. flag MODU must be in compliance with its COI regardless of its location or whether floating or bottom bearing. Consequently, regardless of the vessel's location, mode of operation, or type of international certificates the vessel may possess, a U.S. flag MODU will receive an inspection or reinspection annually.

2. IMO MODU Code

Introduction

a. On 26 July 1982, the Commandant advised the Secretary General of the IMO that the U.S. accepted the organization's MODU Code as equivalent to the requirements of SOLAS 74/78 for such vessels. As noted above, MODUs may comply with SOLAS or with the terms of the code itself. In addition, there will be a number of MODUs not subject to SOLAS for which IMO Code certificates are desired. Revision of Subchapter I-A has been initiated by Commandant (G-MOC). One of the stated objectives of the regulatory workplan is to dovetail Subchapter I-A with the IMO MODU Code.

Administration

b. Upon request of the vessel owner, U.S. MODUs should be inspected to verify compliance with the IMO Code. It is anticipated that such inspections will be conducted in conjunction with inspections for certification. Should a conflict exist between the IMO Code and the provisions of Subchapter I-A, the owner must request an exemption under paragraph 1.4 of the code or the Coast Guard must determine equivalency under paragraph 1.5 of the code. Upon satisfactory completion of the inspection, a MODU Safety Certificate, Form CG-5334, shall be issued to the vessel (see chapter 3 of this volume). The certificate should be dated to expire 2 years from the date of the inspection.

3. U.S. Flag MODUs Operating in Foreign Waters

a. Full compliance with the U.S. regulations may be difficult for units operating in foreign waters and subject to coastal state requirements. When another country's requirements conflict with ours, U.S. Coast Guard regulations shall take precedence unless specifically authorized by the cognizant OCMI.

Electrical Installations in Hazardous Locations

b. 46 CFR 111.105 requires explosion-proof and intrinsically safe systems to be "listed by Underwriters Laboratories, Inc., Factory Mutual Research Corp. or other independent laboratory acceptable to the Commandant." Other laboratories that are acceptable are the Canadian Standards Association (CSA) and MET Testing Laboratory. However, requiring electrical equipment to be listed by these North American laboratories is not always reasonable in foreign waters because such equipment may not be available, or it may not meet coastal state equipment listing requirements. For subcontractor equipment or other temporary installations, other independent laboratories are acceptable for listing explosion-proof equipment and intrinsically safe systems.

(1) *Subcontractor Services.* Drilling operations aboard MODUs often require subcontractor services. Subcontracted services include, among others, well logging, cementing, and casing perforation. Typically, these services are obtained locally by the leaseholder without regard to vessel flag. Contractor electrical equipment usually meets the certification requirements of the coastal state, and not necessarily those of the vessel's home administration. These installations are considered "temporary" although they may be installed for a few days or a few years.

(2) *Temporary Installations.* For temporary installations, equipment approved by an independent laboratory acceptable to the coastal state may be permitted by the OCMI in whose zone the vessel is operating. Where the coastal state has no certification requirements, equipment must be listed by one of the North American laboratories previously indicated, by one of the agencies listed at the end of this section, or by another agency acceptable to Commandant (G-MTH-2). In no case should equipment required by 46 CFR 111.105 to be listed, i.e., explosion-proof (flameproof) equipment or intrinsically safe systems, be permitted based on manufacturer or classification society certification. Upon return to U.S. waters and prior to engaging in OCS activities, MODU's must utilize equipment listed by one of the North American laboratories. Listed below are independent laboratories that are acceptable, provided they are recognized by the coastal state. This list is not intended to be all-inclusive; other laboratories acceptable to the coastal state may be acceptable.

Recognized International Testing Laboratories

Country	Symbol	Organization
Belgium	INIEX	Institut Nationale des Industries Extractives
Denmark	DEMKO	Danmarks elektriske materielkontrol
France	LCIE	Laboratoire centrale des industries electriques
	CERCHAR	Centre d'Etudes Recherches des Charbonnages de France
Italy	CESI	Centro Elettrotecnico Sperimentale Italiano
Norway	NEMKO	Norges Elektriske Materiallkontroll
U.K.	BASEEFA	British Approvals Service for Electrical Equipment in Flammable Atmospheres
Germany	PTB	Physikalisch-Technische Bundesanstalt
	BVS	Berggewerkschaftliche Versuchsstrecke

G. DRILLING TENDERS

1. Introduction

Artificial islands and structures erected on the OCS to support the development of mineral resources may be regarded as "places in the United States" for purposes of the navigation and vessel inspection laws. Accordingly, a drilling tender that is moored to one of these artificial islands or structures may be considered to be "at a port or place in the U.S."

2. Inspection Procedures

Special Agreements

a. Certain inspection agreements have been made with respect to drilling tenders engaged exclusively in providing power, machinery, and accommodations for material and personnel used in underwater drilling, mining, and related production operations. Such vessels are normally anchored for several months at a time at one location, and normally move only when proceeding to a new drilling site or a shipyard. Some of these vessels are self-propelled and others are not. They are all inspected and certificated under Subchapter I.

Drydocking

b. Procedures for extension of drydocking intervals are contained in chapter 8 of this volume. Requests received by an OCMI who did not conduct the last inspection for certification on the vessel should not be granted until approved by the certificating OCMI. Appropriate inspection of the vessel is a prerequisite to granting an extension in all but the most unusual circumstances. Underscantling vessels such as Landing Ships, Tank (LST's) should not be granted extensions.

Examinations of Tailshafts and Stern Tube Bearings

c. Due to their limited amount of time underway, drilling tenders need not have their tailshafts drawn for examination until the weardown exceeds the maximum permitted by 46 CFR 61.20-15. This should be handled on an individual basis, upon written request by the vessel owner. Extensions should be granted in writing, in a manner similar to an authorization to extend the drydocking interval. The date on which the tailshaft was last drawn shall be shown on the vessel's COI, with a notation concerning the extension.

Additional Requirements

d. The standards discussed above do not affect the prerogative of the OCMI to require drydocking or other inspection procedures at any time for cause. Copies of all owner requests and letters of authorization shall be sent to Commandant (G-MOC) and the last certificating OCMI.

3. Delivery of Excess Fuel to Drilling Platforms

Under 46 U.S.C. 3702(b), certain offshore supply vessels (OSVs) are permitted to transfer fuel from their own fuel tanks to offshore drilling or production facilities without being inspected and certificated as tank vessels. Specifically, 46 U.S.C. Chapter 37 does not apply to a documented vessel under these circumstances provided that the vessel in question is not more than 500 GT, it is not a tanker, and it is in the service of oil exploration. A requirement for this exemption is that the person in charge of transfer operations must be a certified tankerman.

H. OCEANOGRAPHIC RESEARCH VESSELS (ORVS)

1. Introduction

ORVs shall receive inspections for certification and reinspections in accordance with 46 CFR, Subchapter U (Oceanographic Research Vessels). Classification as an ORV requires a determination by the Coast Guard. In arriving at such a determination, an analysis of the particulars of service, method of operation, and classes of persons carried should be conducted. For uninspected vessels claimed to be less than 300 GT, tonnage measurement may be a part of this analysis.

2. Accom-modations

Accommodations for officers, crew, and scientific personnel shall comply with the requirements of 46 CFR 190.20. However, members of deck and engine groups that stand watch at the same time may be quartered together. In addition, special consideration shall be given to accommodations for scientific personnel carried on voyages of 14 days or less, provided the general intent of 46 CFR 190.20-5 is met. A space intended as a hospital space under the requirements of 46 CFR 190.20-35(a) may be used for ordinary berthing on voyages of 3 days or less.

3. Scientific Personnel

Scientific personnel are not classed as either "mariners" or as "members of the crew" but as "other persons" engaged on board for the purpose of conducting the business of the vessel. The carriage of scientific personnel shall be indicated by separate endorsement on the COI and reflected in the "Total Persons Allowed."

4. Uninspected Vessels Used as ORVs

Letters of Designation

a. Owners/operators of uninspected seagoing motor vessels of less than 300 GT, and any uninspected motor vessels operating on the Great Lakes, that are intended to be operated as ORVs may request a Letter of Designation as an ORV under 46 U.S.C. 2101(18). After determining that such a vessel is employed exclusively in oceanographic research, the OCMI shall issue a Letter of Designation valid for a period of 2 years (see Figure 10-2 for a sample letter). This letter designates the vessel as an ORV, and advises the owner/operator that the vessel must maintain exclusive employment in oceanographic/limnologic research or instruction and that any deviation from such exclusive use may constitute violations of the inspection statutes. In prior administrative rulings, the study of celestial navigation, seamanship, scuba diving, and other topics, in conjunction with oceanographic research or instruction, has voided a vessel's claim of exclusive employment. Additionally, a vessel documented as a pleasure vessel under 46 U.S.C. 12109 may not secure an ORV designation without surrendering its document, as the vessel would not be used exclusively for pleasure.

Evaluation by the OCMI

b. It is the Commandant's policy that the vessel should be able to retain its designation under 46 CFR 3.10-5 even though the terms of its charter or specific oceanographic work may vary periodically. However, if a change of employment or operating conditions deviates from exclusive oceanographic research/limnologic activities, the owner/operator or master must advise the OCMI who granted the designation. Taking into account the particulars of the case, the OCMI shall determine the eligibility of the vessel to retain its ORV designation based on its new employment/operations. If the vessel is not eligible to retain its ORV designation, it may be subject to inspection under (for example) Subchapter T or I. A formerly designated vessel, upon returning to bona fide oceanographic/limnologic activities, may be considered for a new ORV designation. If all operating conditions are as originally accepted, the information given for the initial request need not be resubmitted. Copies of the Letter of Designation shall be retained by the issuing OCMI and Commandant (G-MOC).

Research Operations Not Under a Letter of Designation

c. An uninspected seagoing motor vessel of less than 300 GT, or an uninspected motor vessel of any size operating on the Great Lakes, that does not possess a Letter of Designation may engage in oceanographic research operations, provided that such use does not violate applicable manning and inspection requirements. Such a vessel shall not be considered an ORV for purposes of 46 CFR 3, 14, 24, and 188-189. Furthermore, scientific personnel who serve in any capacity aboard an "undesignated" vessel of at least 100 GT require MMD's as members of the crew. Carriage of students would be considered carriage of "passengers"; this would compel inspection, depending on the size of the vessel and the number of students/passengers carried. The designation procedure is, however, purely voluntary in nature and needed only where equitable relief from otherwise applicable inspection or shipment and discharge requirements is desired.

Appeals of Evaluation

d. An adverse decision of an OCMI regarding any Letter of Designation request may be appealed to the district commander and to Commandant (G-MOC), according to the procedures outlined in 46 CFR 2.01-70.

FIGURE B4-2
SAMPLE LETTER OF DESIGNATION FOR AN

OCEANOGRAPHIC RESEARCH VESSEL

(On Official OCMI's Letterhead)

[Date]

Name of Vessel Owner/Operator]
[Address]

Subj: Letter of Designation as an Oceanographic Research Vessel,
[Name of Vessel and O.N.]

Dear Sir:

In accordance with the provisions of Title 46, United States Code, 2101 (18), the [Vessel Name and O.N.] is hereby designated an oceanographic research vessel. This designation shall remain in effect until [Date 2 Years From Date of Letter], provided the vessel does not change employment or deviate from engaging exclusively in oceanographic research operations. Any such changes or deviations may constitute violations of inspection laws and must be reported to this office by the master, owner, or agent of the vessel. A determination will then be made regarding the vessel's eligibility to retain this designation.

A request for renewal of this designation should be made by [date, 60 days prior to expiration]. This letter shall be maintained on board the vessel.

Sincerely,

[Signature]
[Title]

Copy: Commandant (G-MOC)
CCGDX(m)

5. Public Vessels Public (e.g., U.S. Navy and National Oceanic and Atmospheric Administration (NOAA)) vessels as defined in 46 U.S.C. 2101(24) operated for oceanographic research are not required to be inspected and certificated by the Coast Guard. However, such vessels may be inspected and certificated upon request by the parent agency and upon an interagency agreement to this effect. When public vessels are alternatively furnished a letter indicating some degree of compliance with the regulations, every effort should be made to obtain one compartment subdivision and damage stability calculations when only 100 percent lifeboatage is provided.

NOTE: Refer to MSM II, Section B, Chapter 5; Inspection of Public Vessels.

I. VESSELS IN IMMOBILE STATUS

1. Permanently Moored Vessels

Introduction and Coast Guard responsibility

a. The intent of this section is to give the COTP / OCMI overall guidance and philosophy on how to best address safety and risk management for permanently moored passenger vessels. Some examples of such PMVs are showboats, theaters, hotels, gaming sites, restaurants, museums, and business offices on a barge. The primary concerns for the Coast Guard COTP and OCMI are assessing the suitability of the site, and deciding if risks are best handled as a certificated vessel or through appropriate standards enforced by local building codes, fire marshal and other jurisdictions. In any case, it is the Coast Guard's obligation to ensure safety for all on or near the water.

Definitions

b. Vessel: A vessel is defined in 46 USC 2101(45) as "any watercraft or other artificial contrivance, used or capable of being used as a means of transportation on the water". A vessel taken out of transportation and permanently moored (or a PMV) falls somewhere between a statutory definition of a vessel and a building or land structure and is deemed to be "substantially a land structure."

Determination and Designation Process for a Passenger PMV

c. PMVs are vessels that are removed from navigation and are not inspected by the Coast Guard. They are vessels that would have received a COI had they stayed in navigation but instead have become "substantially a land structure". However, prior to receiving this designation they must satisfy the Coast Guard that appropriate safeguards are in place and must meet the following criteria:

(1) immobilized (cannot be moved except on a deliberate basis where extensive effort and equipment would be required) and removed from navigation;

(2) meet an acceptable risk assessment;

(3) permitted or otherwise authorized by the United States Army Corps of Engineers (USACE) for the site, and;

(4) appropriate safety standards and local oversight jurisdiction clearly established and designated in writing.

Immobilized and removed from navigation

d. A series of incidents in the spring of '98, where PMVs broke free from their moorings, highlighted the need to critically assess a PMVs mooring arrangements. COTPs should require a professional engineer or equivalent to evaluate the mooring arrangements of any PMV. The determination of the standard to which the mooring arrangements must be evaluated should be made during the risk assessment that is conducted prior to the vessel being placed in PMV status (see MSM II-B4.I.1.e). Consideration should be given to local 100 year storm winds, 100 year flood waters, range of high and low water, etc. Mooring arrangements should consider allision and breakaway risks, and may take into account risk mitigation measures such as protective pilings.

Initial Risk Assessment

e. An initial risk assessment is an integral part of all new USACE site permit reviews done by the CG (see USCG/USACE MOA in MSM Vol. X), or any decisions to allow a vessel to become a PMV. This initial risk assessment should consist of using the simplified risk model described in the next paragraph. Depending on the results of this initial risk assessment a more formal, technical risk analysis may be required by the COTP.

Risk Model

f. The risk model uses six parameters to quantify the risk to the vessel. The model is shown as appendix to this chapter. Rate the vessel on the six parameters as described in the "discussion column" on the risk model.

Formal Risk Assessment

g. If the results of the initial risk assessment result in a location score of 2 or below, or a total score of 13 or below(high risk), then the COTP has articulable grounds for calling the safety of the site location into question. At this point the COTP should exercise COTP authority under the Ports and Waterways Safety Act and require the vessel owner/operator to present a formal risk assessment if they wish to continue to pursue PMV status. Concurrently, the COTP must work with USACE to provide input into the site permit award process as described in the next paragraph.

New Site Permit

h. The USACE has the sole authority to issue vessel or facility siting permits. Per the USCG/USACE MOA in MSM Vol. X, the USACE will seek COTP input on new site permit applications and approvals at the earliest opportunity. The COTP should actively engage with the USACE in siting risk management. If the initial risk assessment indicates a safety problem then the COTP should require the vessel owner to present a formal risk assessment prior to the Coast Guard "signing off" on the USACE site permit process. The COTP should advise the USACE of this determination and recommend that a formal risk assessment be completed prior to granting the site permit.

Existing Site

i. If a vessel is being moved to an existing site that already has a USACE permit, the determination of whether or not to allow the vessel to become a PMV at that site is a Coast Guard decision. If the initial risk assessment indicates a safety problem then the COTP should require a formal risk assessment be conducted.

Risk Mitigation

j. A formal risk assessment should address the safety concerns identified in the initial risk assessment and include risk mitigation measures to reduce the level of risk to which the vessel is exposed. The COTP should remain open to options as risk mitigation measures can cover a broad spectrum of options, such as:

(1) Location: the first and most effective option is to alter the location to reduce or eliminate the risk of allision. However, in many cases site selection options are limited and other risk mitigation tools must be used such as the installation of protective bumpers or “icebreaker” type cells.

(2) Operational Controls: emergency options such as closing businesses in high water, radio watches for timely warning and evacuation in case of runaway vessels etc. may be use to reduce risk

(3) Response Preparedness: emergency exercises and drills on a frequent basis.

Turnover to Local or State Authorities

k. Once the decision has been made that the site is safe and if necessary, appropriate risk mitigation measures are in place, then there must be a transition between the Coast Guard and the local entity that will be taking over responsibility for the regulation of safety issues on the PMV. The COTP should meet with the local or state authority and ensure that appropriate safety standards and local jurisdiction are clearly established. Most local authorities are not well-versed in vessel safety issues and the COTP/OCMI should ensure that, at a minimum, the following issues are addressed in the hand-over to the local entity:

(1) Hull Integrity. The hull structure should be periodically evaluated. This can be accomplished by contracting services from a local surveyor if the local entity does not have the expertise to conduct the evaluation itself.

(2) Integrity of mooring arrangements.

(3) Emergency egress.

(3) Any lifesaving appliances that are part of risk mitigation measures.

(4) Any navigation related operational issues such as maintaining a radio watch.

Designation in writing

l. After the hand over of the PMV to local authorities the transition should be documented in writing by a letter to the local authority with copy to the vessel owner/ operator. This letter should state that the safety issues relating to the PMV have been turned over to the local entity and that the PMV is no longer under Coast Guard inspection.

Record PMV in database

m. The PMV should be loaded in the marine safety database under the vessel type “PMV”. A good deal of information about a PMV such as: location, the local authority responsible for the PMV, process issues like risk mitigation measures, etc. are not data fields normally associated with a vessel. This information should be recorded in the narrative supplement of the activity report that establishes the vessel as a PMV. If the PMV is an existing PMV, then an activity report should be created to capture this information.

Periodically Review PMV Site and Condition.

n. The COTP/OCMI should re-evaluate risks to permanently moored passenger vessels whenever there is a change of traffic, local conditions, etc., or at least every two years. The risk model described herein should be used for this purpose. In addition, the COTP/OCMI should also periodically visit the site and satisfy himself/herself that the vessel is being maintained in satisfactory condition particularly with those aspects of the PMV that are identified herein.

Change of Status

o. A vessel may be placed in navigation periodically, yet keep its status as "substantially a land structure" when moored. When returned to navigation, it becomes subject to inspection under the regulations applicable to its particular operation. The vessel owner/operator must notify the OCMI prior to placing the vessel in navigation. When the vessel is again immobilized, the COTP must again approve the site before the vessel can be considered "permanently moored." Once these conditions are met, the vessel would again be considered out of navigation. This procedure is intended to allow a permanently moored vessel to make infrequent trips for purposes of overhaul, drydocking, location changes, etc. This procedure is not intended to allow the "permanent" mooring of a vessel that is placed in navigation on a regular basis (e.g., on weekly or monthly trips between ports). When intended operations are tantamount to use as a vessel normally requiring inspection, claims of status as substantially a land structure are voided and the structure must be inspected and certificated.

Permanently Moored Passenger Vessel Initial Risk Assessment

Name of Vessel: _____

Location: _____

Passenger Capacity: _____

The risk model use uses six parameters to quantify the risk to the vessel. The parameters are designed to capture the key risk elements associated with permanently moored vessels. Each of the six parameters is scored on a scale of one to five. A low score indicates an undesirable condition and conversely, a high score indicates a desirable situation**. Therefore, based on the six parameters, a vessel could receive a maximum total score of 30 and a minimum total score of 6.**

Rate the vessel on the six parameters as described in the "discussion column" using the following values as a rough guide: 1 = Poor 2 = Fair 3 = Good 4 = Excellent 5 = Outstanding

CATEGORY	VALUE	DISCUSSION
Location		Value based on the vessel's site location in terms of the risk the vessel is exposed to from a collision or allision. E.g., 1 = vessel sited on the outside bend of a river; 5 = boat in a moat. **Other considerations / mitigating factors:** **If total score is 2 or less:** Involve vessel owner /operator and review further risk mitigation actions. If score is still 2 or less, require owner to present a formal risk assessment.
Traffic		Value based on the amount/type/activities of vessel traffic adjacent to the PMV. Factors to consider - amount, size and frequency of traffic; speed of traffic/current; maneuvering constraints/limitations; vessel service. **Other considerations/ mitigating factors:**
Response		Value based on the ability of local maritime response community (including Federal, State and local governments) to provide timely, adequate assistance to disabled/damaged vessels. **Other considerations/ mitigating factors:**
Anticipated environmental factors		Value based on the duration a vessel may be exposed to high risk due to anticipated environmental factors that occur annually, such as fog, river flood stage, storms, etc. E.g. 1 = 4+ weeks/yr.; 5 = 0-1 week/yr. **Other considerations/ mitigating factors:**
Severe and sudden environmental factors		Value based on how often vessel could be at risk due to unpredictable sudden and severe environmental factors such as hurricane, flash flood, tornado. E.g. 1 = anticipated annual occurrence; 3 = occasional (every 5 - 10 yr.); 5 = unlikely (never occurred but possible). **Other considerations / mitigating factors:**
Passenger exposure		Value based on the amount of time and the number of passengers to which a vessel is accessible per week. E.g. 1 = 100,000 passenger-hours/wk.; 5 = 2000 passenger-hours/wk. **Other considerations/ mitigating factors:**

TOTAL		**If total score is 13 or less:** Involve vessel owner/operator and review risk mitigation actions. If score is still 13 or less, require owner to present a formal risk assessment.

J. BOY SCOUT VESSELS

1. Introduction

To assist local Boy Scout councils, chartering organizations, and leaders in complying with Coast Guard inspection regulations, the Boy Scouts of America's Exploring Division and the Coast Guard entered into formal agreement on 1 October 1979. Although the agreement principally addresses the Sea Explorer program, it applies equally to all vessels operated in the interests of the Boy Scouts of America (BSA). The Exploring Division intends that all Sea Explorer vessels, except pulling boats carrying no more than six passengers, will be inspected and certificated.

2. Inspection Procedures

Vessels Inspected Under Subchapter T

a. All Sea Explorer vessels under 100 GT that carry more than six Scouts shall be inspected and certificated under Subchapter T. These vessels are subject to inspection because the Scouts carried are considered to be passengers, as defined in 46 U.S.C. 2101(21)(B). In the past, a strict interpretation of the law did not require inspection and certification of vessels over 65 feet in length used exclusively for Sea Explorer activities. However, to ensure maximum safety, it was BSA policy that all Sea Explorer vessels over 65 feet possess a valid COI when carrying more than six persons in addition to the crew. Therefore, Sea Explorer vessels over 65 feet in length are now required to be inspected and certificated (46 U.S.C. 3301). The section of the 1 October 1979 agreement with BSA that deals with these vessels will be revised to reflect that change.

Vessels Inspected Under Agreement

b. Sea Explorer vessels of more than 100 GT, although not required to be inspected under 46 U.S.C. 3301 et seq., because they do not meet the definition of "passenger vessels," are inspected and certificated in accordance with the existing agreement with BSA. They may be inspected under the Subchapter T standards. Where these standards are inadequate, the provisions of Subchapters F (Marine Engineering), H (Passenger Vessels), and J (Electrical Engineering) may be used.

NOTE: Seagoing motor vessels over 300 GT operated by the Sea Explorers are required to be inspected under 46 U.S.C. 3301 et seq.]

Uninspected Sea Explorer Vessels

c. Sea Explorers engaged in the rowing of pulling boats are not considered passengers. Therefore, pulling boats are not required to be inspected for certification. Likewise, boats of less than 100 GT carrying six or less Sea Explorers (in addition to the crew) do not require certification. All Sea Explorer vessels not inspected under Subchapter T must comply with the appropriate requirements of Subchapter C (Uninspected Vessels). Annual application for a CG Auxiliary Courtesy Motorboat Examination is encouraged.

Manning

d. Certificated Sea Explorer vessels, whether sail or machinery propelled, shall not be operated without the minimum manning specified on the COI. The OCMI certificating the vessel shall determine minimum manning requirements. The OCMI may tailor license examinations to cover minimum professional requirements only, and may restrict the licensee to a particular vessel. The OCMI may permit Sea Explorers to be carried as crewmembers (deckhands) aboard Sea Explorer vessels. The OCMI shall consider the number of passengers carried, route, and general arrangement, in addition to the size of the vessel. The following guidelines are minimum requirements:

Vessel Type & Size	Required Manning
Sailing Vessels < 26 Feet	1 Operator, 2 Deckhands
Sailing Vessels ≥26 Feet	1 Operator, 4 Deckhands
Power Vessels < 26 Feet	1 Operator, 1 Deckhand
Power Vessels ≥ 26 Feet And Larger	1 Operator, 2 Deckhands

NOTE: When a vessel is cruising for more than 12 hours of continuous operation, the preceding minimum crew guidelines shall be doubled to provide two separate watches. Powered vessels not having engine controls at the steering station shall require at least one additional crewmember to provide engine control.

3. Special Situations

46 CFR 175.25-1 provides that the OCMI may consider departures from specific requirements when special circumstances or arrangements so warrant.

4. Right to Appeal

46 CFR 175.30-1 provides for appeal of decisions or actions of the OCMI. In addition, district commanders may arrange for a method of informal dispute settlement for minor disagreements.

5. Assistance from Coast Guard Marine Inspectors

When vessels will be acquired for Sea Explorer use, a marine inspector from the appropriate marine safety unit should be invited by the National Sea Exploring Committee, or the BSA regional office or local council to assist in the examination of the vessel. The inspector will be able to affirm the vessel's general suitability for the Sea Explorer program and indicate the requirements it must meet for certification.

6. Establishment of Agreements and Liaison

The BSA administrator of this agreement is the Director, National Sea Exploring Committee. All matters between the Coast Guard and Sea Explorers of national scope are resolved between the Commandant (or the Commandant's designee) and the National Sea Exploring Committee (or its designee). Liaison between BSA's regional officials and Coast Guard district commanders for the implementation of this agreement by local councils, chartered organizations, and Sea Explorer leaders is the responsibility of the regional director or the director's designee. Liaison responsibilities include resolution of disputes and recognition of significant local conditions.

K. CABLE-LAYING SHIPS

A cable-laying ship is subject to the requirements of Subchapter I. Regulation 3, Chapter I of SOLAS 74 and the 1978 Protocol to the convention do not refer to cable-laying ships or similar types concerning exemptions from SOLAS requirements. Therefore, such vessels, when documented, are subject to SOLAS 74/78 even though they cannot be categorized strictly as either passenger or cargo vessels. The Commandant will require the minimum arrangements that, considering the particular vessel's service and safety elements inherent in its design and construction, can be considered equivalent to the requirements of SOLAS 74/78. Suitable notice of equivalency must be given as provided by Regulation 5, Chapter I of SOLAS 74/78.

L. ELEVATOR VESSELS

The term "elevator vessel," as used in 46 CFR 146.02-2(f)(5), means a harbor service vessel that services cargo vessels by loading and offloading bulk cargo, such as grain and ores, by means of elevator buckets. This type of vessel is classed with cable vessels, dredges, fireboats, icebreakers, pile drivers, pilot boats, and welding vessels (none of which carries freight for hire as a "cargo ship") as miscellaneous vessels inspected and certificated under Subchapter I.

M. RECREATIONAL BOATS RENTED FROM LIVERIES

It is not uncommon for liveries to rent recreational boats, including those propelled by outboard motors, to persons unfamiliar with federal safety requirements. In some cases, when a deposit is required by the livery for the return of lifesaving or other safety equipment, renters decline to accept the equipment and take the boats without it. As a result, everyone aboard is deprived of the protection such equipment provides. Under 46 U.S.C. 4311, responsibility is placed solely on the operator of a recreational vessel to ensure that the proper safety equipment is aboard. Livery operators should advise their customers that failure to have the required equipment aboard a recreational vessel places the boat operator in violation of 33 C.F.R. 175, and operators should be encouraged to have the proper safety equipment on board.

N. APPROVAL PROCEDURES FOR SPECIAL-TYPE CRAFT OR UNUSUAL DESIGNS

1. Introduction

The Coast Guard is occasionally requested to certificate various vessels of unusual design, such as catamarans, hydrofoil surface effect ships, etc., or traditional types (such as sailing vessels and sailing auxiliaries) that incorporate innovative features requiring detailed evaluation. Experience in the operation of such craft may be very limited or totally lacking. Current regulations are based upon experiences with conventional craft, and may be unreasonable or inadequate when applied to unique or unusual designs; available engineering data may also have limited applicability. For these reasons, such craft should be certificated only upon careful evaluation of the proposed design(s) or feature(s).

2. Administration of Requests

When a request is received for certification of a special-type craft or an unusual design, pertinent plans, specifications, and design calculations shall be forwarded to the Marine Safety Center (MSC) for evaluation and approval. Elements considered by the MSC to be beyond its capabilities or expertise, or which require important policy decisions, shall be forwarded to Commandant (G-MOC) for evaluation and approval. In any case, the overall degree of safety shall not be less than the minimum attained by requirements applicable to conventional craft.

O. INTEGRATED TUG BARGES (ITBS)

See Navigation and Vessel Inspection Circular (NVIC) 2-81, "Coast Guard Guidance Regarding Integrated Tug Barge Combinations," and its Change-1.

P. OIL RECOVERY VESSELS

1. Introduction

Vessels built for the purpose of cleaning up spilled oil are of special interest to the Coast Guard. While the building and deployment of these vessels should be encouraged, they must be able to operate safely in areas where flammable vapors are present. Oil recovery vessels present unique problems from a regulatory standpoint. They are designed to carry various grades of oil (usually mixed with water) as cargo for short periods of time, often in a potentially hazardous environment. They are generally small vessels, with minimal crews who may be required to operate far from port under poor weather conditions. The primary safety concern for oil recovery vessels is the ignition of flammable vapors from oil spilled on the water and collected oil stored aboard. The hazard from oil on the water surface may be mitigated by weather conditions and elapsed time prior to cleanup. Likewise, collected oil is usually mixed with water, posing a lesser vapor hazard than does oil alone. In short, the hazard from vapor ignition is variable and difficult to ascertain. One design approach is to require the vessel to have no ignition sources for operation in a hazardous environment. Practically, however, it is extremely difficult to construct and maintain a vessel totally void of ignition sources. These vessels should be considered to have potential ignition sources, and should require the same operational restrictions as other vessels in spill areas.

2. Inspection Criteria

The following criteria shall be applied to oil recovery vessels in plan review and certification:

a. A vessel with no on board oil-holding capacity shall be inspected under Subchapter I only if the gross tonnage or the means of propulsion so require. Otherwise, the vessel shall be uninspected.

b. A vessel with an oil-holding capacity less than or equal to 20 percent of the deadweight tonnage shall be inspected under Subchapter I. Such amounts of oil shall be considered as "limited quantities" under 46 CFR 30.01-5 and 90.05-35.

c. A vessel with a holding capacity greater than 20 percent of the deadweight tonnage shall be inspected under Subchapter D (Tank Vessels).

d. When holding recovered oil, a vessel certificated under Subchapter I shall meet the requirements of Subchapter D.

e. Enclosed machinery spaces shall be provided with positive ventilation.

NOTE: For vessels under 100 GT, it may be appropriate to apply specific requirements of Subchapter T in lieu of comparable requirements under Subchapter F or J. Such application shall be done on a case-by-case basis by the OCMI, depending upon the design specifics of the vessel.

3. Hazardous Location Equipment

The following comments regarding "hazardous location equipment" shall apply:

a. Electrical equipment installations should be kept to a minimum. Hydraulically-powered equipment should be used when available (e.g., hydraulically-powered cargo pumps).

b. Where electrical equipment is employed (switches, lights, solenoid valves, etc.), it must be one of the following types:

(1) Spark ignitionproof (Underwriters Laboratories, Inc. (UL) 1500);

(2) Explosion-proof (various); or

(3) Intrinsically safe (UL 913).

NOTE: The UL listing "spark ignitionproof" (UL 1500) employs a standard that is based on part of the explosion-proof test. Those electrical devices that do not create sparks in normal operation (lights, solenoids, etc.) are inherently "spark ignitionproof" and should obtain UL listing.

c. Enclosed machinery spaces must be ventilated at a rate of at least 20 changes of air per hour by fans designated as "nonsparking" under the provisions of either 46 CFR 110.15-1(b)(16) or subparagraph MSM II-A3.K.3.b above.

d. Belt drives must use conducting belts, pulleys, and shafts to prevent the buildup of static electrical charges.

e. Machinery exhausts must be fitted with spark arrestors.

f. All exposed surfaces (machinery, light lenses, etc.) must be maintained at a temperature below 400oF. When these surfaces are normally accessible to personnel they must be maintained below 150oF for personnel protection.

g. Oil tank vents must be fitted with flame screens and must have a cross sectional area at least as large as the fill lines.

NOTE: Most oil recovery vessels are designed for use with Grades D and E liquids. If use with more flammable grades or with hazardous chemicals is desired, Commandant (G-MTH) should be consulted. Vessels engaged in other service when not operating as oil recovery vessels must meet normal requirements for that service.

4. Endorsements on the COI

The COI shall state that the vessel is an oil recovery vessel. The endorsement for route should be as broad as possible, consistent with the considerations of seaworthiness. Oil recovery vessels may be expected to respond to pollution incidents at great distances from their home ports, often in open sea conditions. When engaged in recovery operations, they are normally in close proximity to other vessels, and a restricted route would be neither desirable nor necessary. The COI will normally be endorsed for the recovery of a specific grade of oil, as is done with tank vessels. However, oil that is of a higher grade may have the reduced ignition potential of a lower grade after weathering. Therefore, the COI should include a statement such as, "Approved for the recovery of Grade and lower. Higher grades may be recovered, on a case-by-case basis, as determined by the OCMI/COTP after consideration of the special circumstances of each recovery operation." Such factors as temperature, wind velocity, and time since spillage shall be considered in permitting the recovery of higher grades of oil.

Q. SMALL MECHANICALLY FASTENED SHALLOW WATER OIL SPILL RESPONSE VESSELS (OSRVS)

1. Introduction

A national response organization, namely Marine Spill Response Corporation (MSRC) has developed and constructed small OSRVs for use in shallow water oil spill responses. Commandant G-MOC has conducted conceptual review and the Marine Safety Center has conducted plan and stability review of these OSRVs. These OSRVs are unique in that they are normally stored on land, capable of being trailered, launched, and outfitted at a spill site. The launching and outfitting includes joining two barges together to form a single stable OSRV of approximately 25 gross tons. Since the combined tonnage exceeds 15 gross tons Commandant G-MOC has determined that these OSRVs are subject to inspection for certification as small recovery vessels.

2. General Requirements

The inspection standards identified during the conceptual review for the MSRC OSRVs are contained in MVI Policy Ltr No. 03-92. Depending on whether the vessel is self-propelled or not, outfitting equipment may include life saving, fire fighting, cargo tank venting, cargo piping, navigation equipment, bilge pump, propulsion unit, crane, and hand rails. These OSRVs are subject to inspection as small recovery vessels, except; machinery and electrical may meet the requirements for a skimming vessel. The bilge pump and fire fighting equipment may be portable (barge), or semi-portable (self-propelled). Toilets and wash basins are not required, provided a tending vessel provides this service. The MSRC OSRVs are limited to operations not more than one mile from land due to the structural integrity of the connection devices.

3. Inspection

Officers-in-Charge, Marine Inspections (OCMIs) should satisfy themselves that the subject OSRVs are fit for the intended service. These OSRVs are stored in groups of eight barges. Recognizing that the individual barges are interchangeable provides merit to not requiring all of the barges to be completely outfitted, unless differences are noted. As a minimum, the self-propelled unit should be outfitted and demonstrated, and required equipment and paperwork for all of the barges examined/inspected. MSRC has provided stenciled equipment boxes for self-propelled and non-self-propelled configurations, which will facilitate the inventory of the equipment. The amount of equipment provided should match the intended number and type of vessels. Since the barge sections are interchangeable, the lifesaving equipment may be stenciled in a generic fashion, to show it belongs to the group of vessels.

4. COI Endorsement

Figure B4-Q-1 below is offered as a standard COI endorsement for the MSRC shallow water OSRVs.

Figure B4.Q-1.

COASTWISE: NOT MORE THAN ONE (1) MILE FROM LAND

AUTHORIZED TO CARRY RECOVERED OILS OF GRADE "B" WITH A SPECIFIC GRAVITY OF 1.05 OR LOWER. THE MAXIMUM DRAFT IS 2 FEET 10 INCHES. VESSEL MAY

NOT OPERATE IN A HAZARDOUS ATMOSPHERE. CONTINUOUS MONITORING MUST BE EMPLOYED ON MANNED VESSELS WHEN RESPONDING TO OIL SPILLS OF GRADE "B" & "C."

ONE (1) CERTIFIED TANKERMAN SHALL BE PROVIDED DURING ALL CARGO TRANSFER OPERATIONS.

PRIOR TO OPERATION AS A OIL SPILL RECOVERY BARGE:

1. MUST BE OPERATED WHILE MECHANICALLY FASTENED TO A SINGLE VESSEL OF THE SAME DESIGN AND CONSTRUCTION.

2. PRESSURE-VACUUM VALVES AND RECOVERED OIL PIPING AND VALVES MUST BE INSTALLED.

3. CLEATS AND DECK FITTINGS MUST BE INSTALLED.

4. NAVIGATION LIGHTS MUST BE INSTALLED.

5. DURING ALL MANNED CARGO OPERATIONS, THE BARGE SHALL BE EQUIPPED WITH HAND RAILS, ONE RING BOUY WITH LIGHT AND LINE, ONE TYPE I PFD FOR EACH PERSON ON BOARD, A PORTABLE BILGE PUMP WITH SUITABLE SUCTION AND DISCHARGE HOSE AND TWO B-II PORTABLE FIRE EXTINGUISHERS MUST BE INSTALLED.

PRIOR TO OPERATION AS A SELF-PROPELLED VESSEL, THE FOLLOWING ADDITIONAL ITEMS MUST BE PROVIDED:

1. ONE PORTABLE COMBUSTIBLE GAS METER FOR MONITORING ATMOSPHERE OR TANK VAPOR CONCENTRATIONS.

2. IN LIEU OF TWO B-II PORTABLE FIRE EXTINGUISHERS; ONE B-V SEMI-PORTABLE AND ONE B-II PORTABLE FIRE EXTINGUISHER SHALL BE PROVIDED.

3. WHEN MANNED A SUITABLE TENDING VESSEL WITH ADEQUATE SANITARY FACILITIES MUST BE PROVIDED.

4. THE MAXIMUM DRAFT IS 2 FEET 8 INCHES WHEN OPERATING IN THE SELF-PROPELLED MODE.

5. THE CRANE IS TO BE OPERATED IN ACCORDANCE WITH THE CAPACITY CHARTS BEARING U.S. COAST GUARD MARINE SAFETY CENTER APPROVAL STAMP DATED 25 JULY 1994.

6. WHEN OPERATING AS A SELF-PROPELLED VESSEL, THE VESSEL MUST BE MANNED WITH ONE MASTER AND A DECKHAND; HOWEVER, WHEN OPERATING OVER 12 HOURS IN ANY 24 HOUR PERIOD AN ALTERNATE CREW MUST BE PROVIDED TO SERVE IN A TWO WATCH ROTATION.

NOTE: The above endorsements are specific to the MSRC OSRVs. These endorsements serve as an example for other small shallow water OSRVs that may operate in a similar fashion, however endorsements must be modified based on each specific vessel/operation.

5. Manning

The proposed manning for 12-hour operations of the self-propelled vessel was a licensed master and a deckhand. Due to the relatively small size of these vessels, the master may act as the person-in-charge of transfer while navigating the OSRV, provided the master does not have to participate in manual tasks associated with the transfer. The adequacy of the manning level should be demonstrated during the OSRV's trials and must be sufficient to comply with the work hour limits of Title 46, U.S.C. 8104 (n). Deviations from the proposed manning level should be forwarded to Commandant (G-MOC) for final determination.

R. LANDING CRAFT-TYPE VESSELS

Landing craft used by the armed services in wartime are obviously designed for special purposes. They are of lighter construction than merchant ships, and the opening-bow design of most types presents structural integrity problems not found on conventional vessels. The Commandant strongly discourages the use of these vessels for commercial service. When landing craft are permitted to be used commercially, special consideration must be given to their suitability for the proposed operation. In some instances, the hull structure has been required to be strengthened before the vessel is certificated. In all cases in which ex-landing craft have been permitted to carry passengers, and in most cases in which they are permitted to carry cargo, a requirement has been made for the permanent closure of bow doors. For those cargo carriers on which bow doors were retained, indiscriminate beaching has not been permitted and suitable shore facilities must be provided. OCMI's shall continue to give particular attention to vessels of landing craft types. The construction, arrangement, equipage, and material condition of each particular vessel shall be considered in determining its suitability for the proposed operation. Each new request for inspection of such a vessel must be evaluated on its own merits. Unless covered by the following provisions, each new request should be referred to Commandant (G-MOC) with appropriate recommendations from the OCMI.

1. LSTs

NVIC 7-56 and NVIC 11-63 contain instructions concerning the structural reinforcement, drydocking, and hull inspection of manned and unmanned LST's, respectively. Since the issuance of these NVIC's, additional requirements have been applied. Hull bottom reinforcement, in addition to that shown in Figure 1 of NVIC 7-56, is required to provide at least 14 square inches of additional bottom plating sectional area on each side of the centerline. This may be provided by strapping, or by increasing the width of the 9/16-inch thick strakes at the centerline and in way of the longitudinal bulkheads. Existing machinery, pressure vessels, piping systems, electrical installations, lifesaving and firefighting equipment, etc., that will not be used must be removed or inactivated. Any original equipment or systems designed for use in the proposed service shall comply with the applicable regulations. Full detail plans of all modifications of the basic LST structure and configuration, including those called for in NVIC 7-56, NVIC 11-63, and this section, shall be approved by the Marine Safety Center (MSC) before inspection for certification. These plans should be submitted well in advance of anticipated alterations or operations to permit adequate review and lead time for work.

2. Other Types of Craft

Landing Crafts, Utility (LCU's), Medium (LCM's), and Tank (LCT's) with bow doors in use have been permitted to carry cargo on waters considered to be semi-protected, provided that:

a. The OCMI is satisfied as to the material condition of the vessel and its degree of meeting equipment requirements.

b. Appropriate conditions and limitations, including the qualification of routes to reasonable operating conditions, are stated on the COI.

c. Provisions are made to waive reporting requirements in instances of routine intentional grounding. The following statement shall be entered on the COI of a landing craft: "Notice of casualty in accordance with 46 CFR 97.07-1(a)(3) shall be made for any accidental stranding or grounding and for any intentional grounding that causes, or is suspected of having caused, damage affecting the seaworthiness of the vessel."

d. The cargo capacity of such vessels shall not exceed that prescribed by the following table:

Vessel Type & Length	Protected Waters / No Beaching Waters	Semi-Protected Waters / Beaching
LCM (50, 56 ft.)	30 Tons (Short)	20 Tons
LCT (117, 120 ft.)150 Tons	100 Tons	

e. Cargo must be loaded low in the vessel, well within the side walls, and properly lashed and stowed. The use of cranes on board these vessels should not be permitted without stability calculations being submitted.

f. Bow and stern sections of LCT's shall be welded to center sections.

3. DUKWs

These World War II-vintage amphibious craft are equipped with radiator cooled engines. Departures from 46 CFR 182.15-10 (which prohibits radiator cooled engines in vessels) are authorized due to the DUKWs unique arrangement, provided a temperature indicator and an alarm are installed (see subparagraph B.2.j above).

S. YACHTS

1. Application of Inspection Laws

Although normally operated as recreational vessels, yachts may be subject to inspection as seagoing motor or steam vessels, depending on the vessel size and area of operation.

2. Steam-Propelled Yachts

A "steam vessel" is defined under 46 U.S.C. 2101(37). Steam vessels are subject to inspection under 46 U.S.C. 3301. Steam-propelled yachts (recreational vessels) more than 65 feet overall in length are subject to inspection. Steam-propelled yachts more than 40 feet in length, but not more than 65 feet overall in length, only require inspection with respect to their boiler, engine, and other operating machinery, per 46 U.S.C. 3302(k).

3. Motor-Propelled Yachts

Motor-propelled yachts of at least 300 GT making voyages beyond the boundary line defined in 46 CFR 7 are, by definition, "seagoing motor vessels" subject to inspection under 46 U.S.C. 3301. Such vessels shall be inspected under Subchapter I.

4. Manning Requirements

➔ See MSM Volume III.

T. FISHING AND FISHERY-RELATED VESSELS

1. Introduction

Fishing vessels, fish processing vessels, and fish tender vessels, as defined in 46 U.S.C. 2101(11)(a), (b), and (c), respectively, may be exempt from vessel inspection requirements and most manning standards by specific wording in 46 U.S.C. 3302(b), (c)(1) and (2), 3304(d), and 3702(c) and (d). Basically, size, propulsion, and service or use of a vessel determines whether or not it is subject to inspection and manning regulations.

2. Determination of Exemptions

Determining the applicability of these exemptions from the various standards to all the different vessel types, fisheries, and locations can be difficult. Figure 10-3 provides a tabulation of the different requirements and is intended to assist in decision-making; it is not necessarily all-inclusive. Questions should be directed to the district commander (m) or Commandant (G-MOC). For uninspected vessels to which manning standards apply, reasonable attempts should be made to verify compliance. Boardings of opportunity in conjunction with casualty and pollution investigations, enforcement of laws and treaties (ELT) and search and rescue (SAR) assistance cases, etc., can be used to this end.

3. Reporting Requirements

Since the need for these vessel-specific exemptions and their impact on safety is periodically reviewed by the Congress, it is important that the Commandant have accurate information on the casualty records of exempted vessels. Whenever possible, casualty investigation reports should identify vessels known to be within these exemption categories. Likewise, any information obtained locally that is relevant to this issue should be forwarded to Commandant (G-MOC).

4. Safety and Lifesaving Equipment on Fishing Vessels

- All safety and lifesaving equipment in excess of that required by 46 CFR Part 28, whether an approved type or not, carried onboard any commercial fishing industry vessel must be;
- maintained and inspected as required by regulation and in compliance with the manufacturer's guidelines; or
- distinctly and permanently marked as to be used ONLY for training if not meeting the maintenance and inspection standards; or
- removed from the vessel if not meeting the maintenance and inspection standards.

SPECIAL NOTE: All excess safety or lifesaving equipment retained onboard a vessel for training purposes shall be stowed in such a manner or location that it will not be mistakenly utilized during an actual emergency.

5. Notes on the Statutes and Regulations Pertaining to Fishing and Fishery-Related Vessels

a. Fishing vessels, tenders, and processors exempted from inspection by 46 U.S.C. 3302 are not exempt from all manning requirements. See 46 U.S.C. 8103, 8104, 8301, 8701, and 8702. If the vessel has a COI, 46 U.S.C. 8101 applies. The implementing regulations are contained in 46 CFR 157.

b. The Officers' Competency Certificates Convention, 1936 is implemented by 46 U.S.C. 8304, and applies to vessels in this category that are of 200 or more GT. The implementing regulations are contained in 46 CFR 157.18.

c. Vessels in this category of 100 GT or less are subject to 46 U.S.C. 8901. The implementing regulations are contained in 46 CFR, Subchapter T.

d. Vessels in this category constructed before 1 January 1980, and vessels aboard which conversion for such use was begun before 1 January 1980 (and completed prior to 1 January 1983) are not required to have a coastwise load line assigned. See 46 U.S.C. Chapters 51 and 141.

e. All vessels in this category constructed before 15 August 1974 or converted for such use before 1 January 1983 are not required to have a coastwise load line assigned. See 46 U.S.C. Chapters 51 and 141.

f. Vessels engaged in foreign voyages or international voyages that are "new vessels" 79 or more feet in length, or "existing vessels" of 150 or more GT, are required to have a load line. See 46 U.S.C. Chapters 51 and 141.

g. Fishing and fish tender vessels of not more than 500 GT engaged in only the fishing industry are exempt from the requirements of 46 U.S.C. Chapter 37.

U. RIVER-RUNNING VESSELS

1. Introduction

The 1970's saw a tremendous national upsurge in commercial river-running activities, commonly referred to as "white water rafting." This enterprise involves an expedition of non-self-propelled boats (usually inflatable rafts), floating down streams marked by rapids of varying degrees of difficulty. These expeditions may last from several hours to several days. Expeditions on relatively calm waters offer novice adventurers the enjoyment of a wilderness journey, while rougher waters offer the thrill of "shooting the rapids." As some river-running operations carry passengers for hire on navigable waters of the U.S., they fall within the purview of 46 U.S.C. Chapters 33, 41, or 42 and, consequently, the regulations in 46 CFR, Subchapters C and T. As these regulations do not directly address river-running operations, a project was initiated to develop suitable regulations and a program for inspection and licensing.

> **NOTE:** The only requirements that apply specifically to white water activities are: have Type I or Type V (Special Purpose) personal flotation devices for each person aboard, and conduct safety orientation for passengers.

2. Program Evaluation

After considerable study, it became apparent that a new regulatory program was unnecessary and inappropriate. White water rafting is generally a thrill-type, inherently risky activity in which participants willingly seek an exciting adventure. Nevertheless, the industry has a good safety record, attributable in part to regulation by federal and state agencies (U.S. Department of the Interior, state boating safety administrators, etc.) and the guidance of rafting owner/operator trade associations. The occasional accidents that occur are not likely to be prevented by a Coast Guard inspection program. Further, because of the distances from most marine safety units to "wild river" areas, the Coast Guard would incur large increases in operating costs with little tangible improvement in safety. Therefore, inspection and licensing action will not be undertaken for commercial white water activities. Future efforts regarding these activities will be initiated to encourage the states (and, on federally-owned lands, cognizant federal agencies) to oversee white water activities.

3. Discretion of OCMIs

It is stressed that this policy does not abrogate Coast Guard authority over white water rafting. The OCMI should be aware of such activities in his or her zone, and should exercise jurisdiction if a specific problem demands corrective action at the local level. Inspection and licensing efforts should not be initiated without prior approval of Commandant (G-MOC). Casualties involving loss of life should be investigated with possible recourse to civil penalty proceedings for negligent operation under 46 U.S.C. 2302.

V. OCEAN INCINERATION VESSELS

1. Introduction

With the advent of stricter environmental controls on the disposal of hazardous wastes, ocean incineration has become a topic of greatly increased interest. This, like land-based incineration, is a high-temperature combustion process; however, it is performed on special-purpose vessels. Wastes disposed of in this manner are organic compounds, most commonly chlorinated hydrocarbon wastes, that are difficult to destroy by other processes and that produce highly acidic combustive wastes. The burning process itself is conducted at specific ocean sites that have been designated by the Environmental Protection Agency (EPA). One site is presently located in the Gulf of Mexico; another has been proposed in the Atlantic Ocean. U.S. involvement in the ocean incineration concept began in the early 1970's, when the Singapore registered vessel VULCANUS (renamed VULCANUS I) was employed to dispose of chlorinated hydrocarbon wastes for the Shell Oil Company. Since that time, VULCANUS I and now VULCANUS II have burned polychlorinated biphenyls (PCB's) and the herbicide 2,4,5-T ("Agent Orange").

2. Federal Controls

The EPA and the Maritime Administration (MARAD) established an interagency working group in which the Coast Guard participated. This group considered the environmental impacts of the ocean incineration process, its economic feasibility, possible government actions to encourage development of a U.S. incineration fleet, and presently applicable regulations. It was determined that the only government support for such development existed in MARAD construction loan guarantees. The EPA is responsible for incinerator efficiency, designations of burning sites, and enforcement of waste disposal requirements. The Coast Guard is responsible for approving the designs of such vessels, ensuring that they are maintained to acceptable standards, overseeing loading operations, and assisting the EPA in enforcement activities.

3. Coast Guard Enforcement Measures

A rider to the Fisheries Act Amendments of 1982, which became effective on 29 December 1982, places U.S. incineration activities under the protection of the Jones Act and restricts burning of U.S. wastes to U.S. vessels. Special exemptions have been given to the VULCANUS I and VULCANUS II; the latter, under Liberian registry, will operate principally from Mobile, Alabama. However, these vessels operate under COI's and are subject to drydock examinations and inspections to ensure their maintenance to the same standards as U.S. incinerator vessels. Coast Guard COTP personnel also monitor loading operations and assist in enforcement activities. Special inspection procedures may be required to ensure adequate protection for Coast Guard personnel. Commandant (G-MOC-2) will provide specific guidance when the VULCANUS I and VULCANUS II are due to be inspected.

W. LAUNCHES AND LIFEBOAT USES

1. Passenger Vessels—Launches

Foreign flag vessels occasionally use their own launches or lifeboats to ferry passengers ashore. Such use of ship's boats to ferry passengers between a passenger vessel and shore constitutes the carriage of passengers for hire. Operations and manning, including licensed operators, shall be in accordance with the regulations for passenger vessels. Some foreign flag states issue Lifeboat/Tender Safety Equipment Certificates to lifeboats used as passenger launches. Although these certificates are not SOLAS certificates, they certify that the boat meets an equivalent level of safety in view of its limited route and service. These launch certificates are considered certificates of inspection issued by the flag state (see 46 U.S.C. 3303). Foreign flag launches which have SOLAS Passenger Ship Safety Certificates or unexpired certificates of inspection issued by proper authority of its respective country are subject to Control Verification procedures. Launches without SOLAS certificates or unexpired certificates of inspection are subject to U.S. inspection and certification.

a. For foreign flag launches, a U.S. issued Certificate of Inspection (COI) should include appropriate limitations on the area of operation. In no case should the COI on a foreign flag launch authorize operation in areas outside of U.S. jurisdiction. As a minimum, the inspection should be sufficient to ensure that machinery and electrical installations are safe and appropriate, and that lifesaving equipment adequate for the area of operation is provided. Drydock inspections can be completed with the boat in the davits.

b. For foreign launches, including foreign-built boats on U.S. registered vessels, the U.S. Customs Service has ruled that transport of passengers between a passenger vessel (in U.S. territorial waters) and a point on shore is not a violation of 46 App. U.S.C. 289, if the following conditions are met:

(1) The transporting boats arrive in the U.S. territorial waters on board the vessel;

(2) The boats are used solely to transport the passengers between the vessel and the shore;

(3) The District Director of Customs is satisfied that it is not safe or feasible for the vessel to berth at a pier; and

(4) The boats depart U.S. territorial waters on board the vessel.

a. Foreign-built launches meeting the conditions of the Customs Service ruling would not be engaged in coastwise trade. The boats would, therefore, not have to be documented, even if carried on a U.S.-registered vessel. Depending upon state law, these boats might have to be numbered in the state of principal use, if they are not documented.

2. Passenger Vessels—Use of Lifeboats as Launches

All of the conditions for launches apply to lifeboats used as launches. In addition, the boats must meet all requirements for lifeboats. The boats may be used as passenger launches in and around the port in the vicinity of the vessel, as long as the vessel is at anchor or at the dock. (However, note that most operations in U.S. waters with the vessel at the dock would constitute coastwise trade with attendant documentation issues.) When the vessel is at anchor, there must be enough lifeboats and davit-launched liferafts remaining on board or alongside, to accommodate all persons remaining on board the vessel. The boats will be limited to launch service between the vessel and the shore at all times when there are passengers on the vessel.

a. For vessels with Coast Guard approved lifeboats, certification for the boats should not prove difficult, since the construction regulations for lifeboats have many similarities to Subchapter T requirements, such as fire-retardant resins for FRP construction, fuel and electrical system installation, and others.

b. It is possible that the number of persons permitted on board the boats in launch service will be different from the lifeboat capacity due to differing freeboard and stability requirements, and methods of determining capacity.

c. SOLAS Regulation III/19.2 (1983 SOLAS Amendments) states "Before the ship leaves port and at all times during the voyage, all lifesaving appliances shall be in working order and ready for immediate use." U.S. regulations for (large) passenger vessels require in 46 CFR 75.15-5 that the lifeboats and liferafts "be kept in good working order and available for immediate use at all times when the vessel is being navigated and, insofar as reasonable and practicable, while the vessel is not being navigated." This means that the boats will have to be stowed and configured for immediate use as lifeboats when the vessel is underway, including removal of floorboards and any other extra equipment carried for launch use which might interfere with use as a lifeboat.

d. Requirements for buoyant apparatus or life floats can normally be waived for lifeboats used as launches, since lifeboats are equipped with lifelines and inherent flotation that prevents them from sinking. Lifejackets and ring life buoys of the appropriate number are required, however, when the lifeboat is being used as a launch.

3. Cargo and Tank Vessel Launches

The situation for cargo and tank vessels is somewhat different. In some cases, these vessels are required to anchor offshore while awaiting cargo, berthing, stores, etc. The use of the ship's boats for transport of crew and stores between the vessel and the shore is acceptable. However, operation to or between different points on shore or to other vessels could constitute coastwise trade, and therefore involve issues of licensing and documentation.

X. SUBMERSIBLE VESSELS

A "submersible vessel" or "submersible" is a privately owned vessel, capable of completely submerging, that is designed for manned or unmanned independent operations underwater. Voluntary reports of submersible operations in or near U.S. waters may be made to the nearest Coast Guard Operations Center. Inquiries about the extent of such reports and other questions that cannot be resolved locally should be directed to Commandant (G-NRS) at (202) 267-1948. These reports are intended primarily for informative use in search and rescue (SAR) activities only.

1. Regulatory Oversight

a. General Requirements. Presently, the Coast Guard does not have inspection standards applicable to the design or construction of submersible vessels. As a submersible's size, means of propulsion, nature of operation, and cargo carried (if any) approximates those regulated under Title 46, Code of Federal Regulations (CFR) on surface vessels, the appropriate standards will be applied to ensure a degree of safety equivalent to that obtained on surface vessels.

b. Application of 46 CFR, Subchapter C. Generally, submersibles are subject to 46 CFR, Subchapter C (Uninspected Vessels) requirements for lifesaving and firefighting equipment, display of navigation lights and use of signals, and control of hazards associated with gasoline engines. Some items covered in Subchapter C may not be applicable for use on small submersibles. Owners or operators of such craft may request the officer in charge, marine inspection (OCMI) to accept equivalent equipment, under 46 CFR 24.15.

c. Application of 33 CFR, Subchapter S. Submersibles must also comply with certain provisions of 33 CFR, Subchapter S (Boating Safety). Undocumented submersibles (i.e., those not having federal documentation or license) with propulsion equipment, must be numbered in accordance with the federal numbering system or the numbering system of the state in which the submersible will be principally operated. When a submersible is involved in a collision, accident, or casualty, the operator is required to report such occurrences to the appropriate OCMI or state authorities, and to render all possible assistance to others involved in such incidents. 33 CFR 155 (Oil Pollution Prevention Regulations for Vessels) and 33 CFR 159 (Marine Sanitation Devices) also apply to submersibles.

2. Recreational Submersibles and Those Carrying Six or Fewer Passengers

These vessels are included within the meaning of the term "recreational vessel" in 46 U.S.C. 2101(25) and "uninspected passenger vessel" in 46 U.S.C. 2101(42). Accordingly, operators of such vessels are subject to the requirements of 46 U.S.C. Chapter 43 and 33 CFR, Subchapter S, as well as the regulations indicated above. For example:

a. All submersibles carrying six or fewer passengers for hire must be operated by a person licensed as a by the Coast Guard as an Operator of Uninspected Passenger Vessels.

b. 46 U.S.C. 4310 and 33 CFR 179 require the manufacturer of a submersible to notify the first purchaser of any defects and to correct them.

c. Under 33 CFR 181, the manufacturer must affix a hull identification number (HIN) to the submersible. This requirement applies to "backyard builders" as well as industrial firms. Upon written request from a manufacturer (or importer), Commandant (G-NAB) will assign a manufacturer identification code (MIC) which is a required part of the HIN. Persons who build or import boats for their own use and not for sale must obtain the required HIN from the State Boating Law Administrator of the state where the boat will be principally used, or from the Coast Guard district office in the area.

d. In addition, 46 U.S.C. 4302 authorizes the Coast Guard to prescribe safety standards for the design and performance of submersibles. These are published in 33 CFR, Subchapter S. Prospective manufacturers of submersibles should be encouraged to contact the Auxiliary, Boating and Consumer Affairs Division, Commandant (G-NAB), to determine which Subchapter S requirements will apply to their craft.

Y. PASSENGER CARRYING VESSELS

1. Passenger Vessels (PVs)

46 USC 2101(22) defines PV as a vessel of at least 100 gross tons, carrying more than 12 passengers, including at least one passenger for hire **OR** a vessel that is chartered and carrying more than 12 passengers. Employees of the owner of a PV who are on board and not engaged in the business of the vessel are passengers.

2. Uninspected Passenger Vessels (UPVs) and Small Passenger Vessels (SPVs)

The statutory definitions for UPVs and SPVs do not contain the "for hire" requirement. The definition of passenger is the test for whether compliance with the vessel inspection and manning regulations is required. When employees are on board an employer's PV or UPV, they are passengers by definition unless they are the master or a crewmember engaged in the business of the "vessel". An example of this might be a boat owned by a boating magazine covering an event on the water. The master and crew of the vessel would not be considered passengers for either a UPV or SPV. However, on a UPV a company advertising salesman on board to take notes on prospective clients would not be considered crew engaged in direct business of the vessel and would be a passenger. With an SPV, this same salesman is engaged in the business of the vessel owner and, by extension, is not a passenger.

If the vessel in question is operated on a legal bareboat charter and is carrying only employees who are not considered passengers under 46 USC 2101(21), then they are not engaged in coastwise trade and documentation is not required.

3. Passenger Vessel Investigations

Pending definitive legislative resolution, enforcement personnel shall continue investigations and boardings of passenger vessels as current procedures specify (except in situations where more specific guidance pertaining to particular vessels dictates otherwise). Any vessel documents and/or charter agreements reviewed during boardings, which appear to be in proper order, should be accepted at face value. This policy results in the following courses of conduct in specific situations:

a) If the condition of the documents and the circumstances of the voyage give the boarding officer no reason to doubt the validity of a purported bareboat charter party, a valid charter agreement shall be assumed to exist. For the purposes of any further safety inspection, the vessel shall be considered to be within 46 USC 41 or 43 as appropriate.

b) If a bareboat charter party appears on its face to be valid, but the circumstances nevertheless give the boarding officer some reason to doubt its validity, no further immediate inquiry into the nature of the agreement will be undertaken. In these circumstances, however, guest lists, pertinent legal documents, and the names and addresses of owners, operators, or persons-in-charge may be gathered during the boarding for later follow-up investigation ashore. Any further safety inspection during the boarding shall be conducted in accordance with the assumption that the documents are valid, i.e., the vessel shall be considered within 46 USC 41 or 43, as applicable.

c) If a purported bareboat charter party is invalid on its face, then the inspection shall proceed as if no bareboat charter party exists.

d) Naturally, the voyage of any vessel determined to be unsafe under the assumptions described above should be terminated in accordance with applicable guidelines.

Z. OIL/BULK ORE (OBO) VESSELS

1. Class Problems

OBO vessels are vessels that originally carried grain and ore cargoes and were then converted to oil carriers. The handling of grain and ore cargoes requires the use of clamshell buckets and draglines, as well as other types of shovel equipment that is literally dropped into the cargo holds. The bulk cargo is also moved around inside the holds with overhead unloaders and bulldozers. The use of this heavy machinery to handle these types of cargo causes damage to the cargo hold boundaries. When these vessels enter into the liquid cargo trade, there may be many leaks into the void spaces surrounding the converted cargo tanks. This presents an explosion and fire hazard if the void spaces are not properly cleaned or inerted.

2. Inspection Procedures

Although OBO vessels identified as having leakage problems are primarily Swedish built, all vessels of this configuration should be considered to have the potential of leakage into void spaces. The following action should be taken to minimize the potential for leakage risk:

a. During each required boarding of an OBO carrying flammable or combustible liquid cargoes, and more frequently if deemed appropriate by the OCMI, voids should be sounded for leakage and/or otherwise checked to ensure that they are clean and free of vapors. If cargo is found in a void space, then that space shall either be cleaned and gas-freed or inerted to the satisfaction of the OCMI.

b. Some vessels have inerting systems connected to void spaces, which require extra attention. These spaces should be checked for O_2 content. If the O_2 content is above allowable limits, the inerting system should be brought on line and the O_2 level reduced, unless it can be shown that there is no leakage of cargo into the void spaces.

3. Notification of Cargo Leakage

When leakage of cargo into a void space is found, the OCMI should take whatever action he or she deems appropriate to ensure that transfer operations can be conducted safely. Notification should be made to the vessel's master and owner or operator that the vessel will not be allowed to return to the U.S. until all leaks have been repaired. The vessel's classification society should also be notified of the defects. A Special Inspection Note should be entered into the vessel's MSIS file (see MSM II-A3).

AA. DRACONES

The Coast Guard has concluded that it would be unrealistic to apply inspection standards to dracones. It is the view that dracones are essentially employed as emergency response equipment, much the same as skimmers and containment boom. Although they may technically be considered vessels when deployed, their construction, operational limitations and mode of employment make application of the inspection statutes inappropriate.

It is recommended that contractors using dracones for temporary storage or transfer of product periodically examine them in accordance with manufacturer's instructions. Otherwise, there are no other applicable servicing or examination criteria.

BB. UNDOCUMENTED VESSELS

1. Authority for Numbering of Undocumented Vessels

Under 46 U.S.C. 12302, the Secretary of the Department of Transportation (SECDOT) has the authority to establish a federal standard numbering system for vessels, and to approve state numbering systems which are in accordance with this federal numbering system. The federal system is outlined in 33 CFR 173; provisions for state number systems are found in 33 CFR 174. Most states have met the basic intent of the federal standard system, and their numbering systems have been approved accordingly.

> **NOTE:** In 1985, only 2 jurisdictions lacked numbering systems that complied with the federal standard: Alaska and New Hampshire. The numbering of all boats registered in these states that operate on waters under the jurisdiction of the United States is accomplished by Marine Safety Office (MSO) Juneau, for Alaska, and the First Coast Guard District (CCGD1), for New Hampshire.

2. Comparing Federal and State Numbering

Approved state numbering systems meet the basic intent of the federal standards under 33 CFR 173 and 174, and they number all undocumented vessels equipped with propulsion machinery of any type. There are slight differences between the standard system and individual state systems. For example, Rhode Island registrations expire every 2 years, instead of the 3 years allowed by the standard system; in other states, the registration expires annually. Approximately one-quarter of the states require numbering of vessels other than those propelled by machinery only. Validation stickers, required for those vessels numbered by the Coast Guard, are optional under state numbering systems.

3. Numbering Undocumented Vessels

Federal and state systems for numbering undocumented vessels follow similar procedures. For a new number issue, the vessel owner forwards an Application for a Certificate of Number, plus a registration fee, to the appropriate numbering authority. Upon receipt of the application and fee, the numbering authority will usually issue a temporary Certificate of Number. The permanent certificate and validation decal(s), if required, will be forwarded at a later date. The validation decals are distinctively colored to indicate the year the number expires (see 33 CFR 173). Once approved, a state numbering system is in full effect and exemptions granted by the state are recognized by the Coast Guard. For example, North Carolina's approved system exempts boats powered by electric motors. Although an electrically propelled boat is required by federal regulations to be numbered, the North Carolina law is controlling, and the Coast Guard will not act against the operator of such a boat in that state.

> **NOTE:** 46 U.S.C. 12302(f) states that the SECDOT may withdraw approval if the state system is not consistent with the federal system.

4. Offenses Related to Numbering of Undocumented Vessels

In states which have an approved numbering system, enforcement of the numbering regulations will be deferred to the state authority. Enforcement of numbering regulations is done in the course of enforcement of all federal boating laws and regulations. A Report of Violation, Form CG-4100, shall be forwarded to the district commander for appropriate civil penalty action.

5. Numbering of Certificated but Undocumented Vessels

a. Subject Vessels. Due to the nature of their employment, the route upon which they operate, their size, or interagency understandings, certain classes of vessels are required to have a Certificate of Inspection (COI), but are not required to be state or federally numbered. These include, but are not limited to:

(1) Public vessels, public school ships, and civilian manned vessels of the Military Sealift Command (MSC), U.S. Navy, or the U.S. Army Corps of Engineers (USACE), which possess COI's.

(2) Barges, sailing vessels, and inland motor vessels carrying flammable or combustible cargo in bulk, or dangerous cargo, which require COI's but are not subject to federal documentation or state numbering statues.

(3) Vessels not normally inspected as a consequence of location of operation, which must obtain COI's for changes in location of operation or a change of service (e.g., a barge or dredge which changes location of employment via a route which would subject it to the requirements for seagoing barges).

b. Procedures. An internal Coast Guard numbering system has been established as a standard for record maintenance and tracking of tank and dangerous cargo barges. This system is used to track vessels through changes of ownership, operators, and names for maintenance of the Marine Safety Information System (MSIS). Upon receipt of a COI Amendment or Report of Marine Accident, Injury or Death, Form CG-2692, on a certificated but undocumented vessels, the Marine Safety Information System Branch, Commandant (G-MP-4), will assign to that vessel a number consisting of the letters "CG" followed by six numerals. Cognizant field units will be notified of the number assigned to each vessel; all COI's and reports should list that number in the "Official Number/Award Number" block of the form.

NOTE: Owners are encouraged, though not required, to mark their vessels with the Coast Guard number in a manner similar to marking of Official Numbers.

CC. INSPECTION AND CERTIFICATION OF MOORED PASSENGER/ATTRACTION VESSELS

1. Purpose

The purpose of this policy is to set forth procedures for the inspection and certification of temporarily moored attraction vessels as passenger vessels.

2. Discussion

a. Attraction vessels are vessels that are put on public display or used as a platform for a public exhibit and carry "passengers" only while temporarily moored to dock. By charging visitors some form of admission to board, or accepting donations or some other valuable consideration, attraction vessels are subject to U.S. inspection laws as passenger vessels or small passenger vessels. These vessels may operate on an established itinerary, calling on several ports for brief periods of time. Attraction vessels may be of unique or unusual design, have some historical significance, be restored or constructed as replicas of former vessels or provide some related maritime interest to the public. Generally, the design or construction of an attraction vessel precludes conformance with or retrofitting to meet U.S. passenger vessel requirements without damaging the originality of the vessel.

b. The term "passenger" as used in this policy is the same as defined in 46 USC 2101(21)(A).

3. General Policy

a. In recognition of the reduced safety risks associated with a vessel that is moored to a fixed structure, an attraction vessel may be issued a Certificate of Inspection (COI) to permit operation as a passenger vessel if the OCMI is satisfied that the vessel can operate safely while moored. A COI may be issued under this policy with a period of validity up to one year and will contain specific operating restrictions, including those addressing local conditions. An attraction vessel with a valid COI issued under this policy that relocates in another OCMI zone will undergo subsequent reinspection by the cognizant OCMI to determine the need to specify operating restrictions based upon local port conditions.

b. Regardless of the period of validity of the COI, an attraction vessel will be considered to be operating under the terms of its COI only while it is moored at the location(s) and during the period authorized, as specifically endorsed on the COI by the OCMI.

4. Applicability

These guidelines apply to a vessel meeting the following criteria:

a. A U.S.-flag vessel that is either uninspected or, if inspected, lacks authorization on its COI for the carriage of passengers. Or, a foreign-flag vessel that does not possess a valid SOLAS Passenger Ship Safety Certificate.

b. The vessel is visiting a port or place for a limited period of time.

c. The vessel is not permanently moored.

d. A charge for admission or some form of compensation or consideration from visitors is required, expected, or accepted in conjunction with boarding.

e. Passengers are not carried while the vessel is underway or while the vessel is at anchor.

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5. Duration of Operation in a Zone

This policy is not intended to permit a vessel to circumvent vessel inspection laws by operating as a passenger vessel while moored for an indefinite period of time in the same general area. A period of approximately one month at the same location or port area is considered reasonable, but in unusual circumstances, OCMIs may permit a brief extension of the initial period. An OCMI shall, when issuing or amending a COI issued pursuant to this policy, specify in the operating details of the COI the dates when and place(s) where in the OCMI's zone the vessel is permitted to operate.

Jones Act Status

a. Jones Act Status. U.S. Customs, in practice, has not considered a foreign-built vessel moving along the coast and charging a fee for exhibition as coastwise trade, provided promotional literature, or articles for sale or exhibit are not loaded and unloaded between coastwise points. If there is doubt as to the applicability of the Jones Act to a particular attraction vessel, prior to issuing a COI, an OCMI may require the vessel operator to obtain a ruling from the U.S. Customs Service, Office of Regs and Rulings, Entry Procedures and Carrier Branch, 1300 Pennsylvania Avenue, Washington, D.C. 20229, Tel (202) 927-2320.

Application for Inspection

b. Application for Inspection. To apply for inspection as an attraction vessel, the owner or operator of an uninspected or foreign vessel will submit an application for inspection to the cognizant OCMI. Accompanying the application for inspection, the owner or operator must submit additional vessel information per paragraph 7.a. and a port operating plan containing port specific information per paragraph 7.b. If the vessel will be operating on an itinerary and calling in other OCMI zones, the owner or operator should arrange for reinspection in subsequent ports, but need only submit a port operating plan in advance. A U.S. inspected vessel not in passenger service will be required to submit an application for inspection and information to the OCMI as specified in paragraph 12.

Additional Vessel Information and Plans Required

c. Additional Vessel Information and Plans Required. Accompanying the application for inspection, the owner or operator shall provide the following information to the OCMI:

(1) A copy of the vessel's fire control plan and/or structural fire protection plan, if such plans are available.

(2) If a fire control plan in accordance with SOLAS 74 (as amended), Chapter II-2, Reg. 20 is unavailable, a basic plan should be provided, indicating the locations and types of all emergency response or safety-related equipment available on the vessel, including fire fighting, damage control, and lifesaving equipment.

(3) Proposed maximum number of passengers to be permitted aboard the vessel, including the calculations used for determining the maximum number of passengers.

(4) Results of the most recent hull examination, if any, including an assessment/testament as to the condition of the hull.

(5) Copies of any applicable certificates issued by other OCMIs, the vessel's home Administration, or a recognized classification society (e.g., Load Line, SOLAS, etc.).

(6) The minimum number of crewmembers to be aboard the vessel during hours of operation and an explanation of their job descriptions and qualifications.

(7) Amounts, types and stowage of any flammable or combustible liquids including fuel aboard the vessel.

(8) The proposed (general) itinerary of the vessel while in U.S. waters, including ports, dates of arrival and departure.

Submission of Port Operating Plans

d. Submission of Port Operating Plans. A Port Operating Plan shall be submitted to the OCMI conducting the inspection for certification and to the OCMI for each subsequent zone where the vessel will be operating. The Port Operating Plan will provide detailed information concerning a vessel's intended operations while in each respective OCMI zone. Each Port Operating Plan should include the following information:

(1) Approximate dates when the vessel will operate in the OCMI's zone.

(2) Location(s) in the OCMI's zone where the vessel will operate.

(3) Proposed hours of operation during which passengers would be permitted on board.

(4) Proposed method for mooring the vessel.

(5) Means of access/egress for passengers.

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8. Inspection for Certification

The inspection for certification of an attraction vessel should be oriented towards identifying potential hazards to passengers on board that vessel while moored to a pier. In this respect, the requirements and scope of the inspection are significantly less than that for inspection of a vessel carrying passengers underway. The following provides general and specific requirements, particular areas of concern, and suggested equivalent standards of safety for moored attraction vessels.

Pollution Regulations

a. Pollution Regulations. Attraction vessels shall comply with the requirements for pollution prevention and marine sanitation devices as found in 33 CFR 151, 155, 156 and 159.

Decks, Rails, and Stairs

b. Decks, Rails, and Stairs. Deck areas, stairs and ladders will be free from tripping, slipping and falling hazards to passengers. The OCMI may apply the standards for heights of deck rails from the regulations for small passenger vessels in 46 CFR, Subchapter T.

Gangways (or Brows)

c. Gangways (or Brows). Gangways should be suitably sized and located to accommodate passenger/crew escape in the event of an emergency. Depending upon vessel arrangement and size, and width of the gangway, the OCMI may require the installation of two or more gangways. Inspectors should closely scrutinize any gangway that is attached to the side of a vessel, in lieu of being supported by a gunwale or other deck support. Unless properly designed to accommodate the service load and the dynamic forces resulting from tidal changes and vessel surge, the mounting brackets used to attach the gangway to the side of the vessel are subject to potential failure, presenting a serious safety risk to persons using the brow. When side-mounting brackets are used, a redundant means for securing the gangway shall be provided. This may be accomplished by use of ropes, chains or cables attached to a secure structure or fitting on deck, which could support the brow in the event of failure of the side brackets. Regardless of design and securing arrangements, OCMIs should consider requiring the installation of safety nets below all gangways, where practicable.

Lighting

d. Lighting. Interior lighting in areas accessible to passengers should be adequate to the extent that portable lighting equipment should not be necessary. If emergency lights are not installed, guides or crewmembers on watch during hours of operation may be required to carry suitable portable lighting. If the vessel operates at night, there shall be exterior lighting of sufficient intensity for illuminating the weather decks and gangway(s).

Electrical Fixtures and Wiring

e. Electrical Fixtures and Wiring. Electrical installations and equipment shall be reasonably safe from fire or electrical shock. For U.S.-flag vessels, inspectors should refer to the electrical standards included in 46 CFR, Subchapter J, K, or T (as appropriate) as a general guide. For foreign-flag vessels, the standards found in SOLAS 74/78 (as amended), Chapter II-1, Regulation 45 should be used.

Means of Escape from Below-Deck Spaces

f. Means of Escape from Below-Deck Spaces. If below deck areas will be accessible to passengers, at least two means of escape should be available, or as an equivalent, the number of passengers permitted below decks or in a space below decks at any given time should be restricted. The OCMI may also require that passengers be escorted by a crewmember in areas below deck. If below-deck areas have no emergency back-up lighting system, crewmembers assigned to escorting passengers must carry flashlights.

Engine room and Bilges

g. Engine room and Bilges. Machinery spaces shall be examined for potential fire hazards. If passengers will be permitted in machinery spaces, the vessel operator shall identify to the inspector any equipment that may be in operation with passengers on board. An examination shall be made to detect slipping and overhead hazards, adequacy of guards for rotating machinery, appropriate insulation of hot pipes or equipment, protection of open switchboards, etc. All pressure vessels shall be identified to the inspector. If, as a result of the examination, areas are considered dangerous to passengers, they shall be declared off limits and required secured during hours of passenger operation. Spaces should also be inspected for evidence of excessive water or oil in the bilges. If such condition exists, it shall be corrected to the satisfaction of the OCMI prior to allowing passengers aboard the vessel.

Fire Fighting Equipment

h. Fire Fighting Equipment. The OCMI shall be satisfied with the amount and type of fire fighting equipment aboard the vessel. The following guidelines will apply to fire equipment requirements:

(1) Fixed fire fighting equipment, if any, and portable extinguishers shall be tested or serviced annually to the satisfaction of the OCMI. OCMIs may accept certificates issued by a professional service provider as evidence of proper servicing.

(2) In determining the number of portable extinguishers required, the OCMI may apply the standards of 46 CFR, Subchapter T, K, or H as appropriate. Portable extinguishers need not be Coast Guard approved but must be of a marine type. The use of water fire bottles is prohibited. Only carbon dioxide, foam or chemical extinguishers suitable for marine application are permitted.

(3) Fire detection and alarm systems, if installed, shall be tested to the satisfaction of the OCMI. Passengers shall not have access to any space protected by fixed gas (CO2 or Halon) fire extinguishing system unless the space has a time delay and audible warning device that activates prior to releasing the extinguishing agent. Further, the OCMI shall be satisfied that the space has adequate means of escape for the maximum number of passengers permitted in that space at any given time.

NOTE: The OCMI may require that fire drill be conducted as part of the inspection for certification.

Lifesaving Equipment

i. Lifesaving Equipment. A minimum of two ring buoys with lines shall be provided on board the vessel. Additional ring buoys, with lines as specified by the OCMI, may be required. If the vessel operates at night, ring buoys shall be outfitted with lights.

Means for Retrieval of Persons from the Water

j. Means for Retrieval of Persons from the Water. The vessel shall have suitable means or a procedure acceptable to the OCMI for the retrieval of persons from the water. The OCMI may require that a man-overboard drill be conducted as part of the inspection for certification.

Hull Condition

k. Hull Condition. The OCMI shall be satisfied with the condition of the vessel's hull. Where evidence of a satisfactory hull examination or internal structural examination within the past five years is unavailable, the vessel may be required to undergo an appropriate hull examination. In such case, the OCMI may require a drydock examination, underwater survey or internal structural examination, as necessary to gain an adequate condition assessment of the vessel hull.

Mooring Facilities

l. Mooring Facilities. The vessel's mooring location, equipment and arrangements must be acceptable to the OCMI. An OCMI should consider the location of the vessel in terms of vessel traffic, nearby waterfront facility operations, and accessibility by emergency responders. The general condition of the pier or other structure that the vessel is moored to should be evaluated for the safe transit of passengers and access by emergency vehicles. The risk matrix for permanently moored vessels, as found in MSM II-B4.I.1, may by used as a guide for OCMIs when evaluating mooring arrangements.

Public Address System

m. Public Address System. Vessels permitting passengers below decks shall have a public address system or equivalent means, acceptable to the OCMI, to alert the crew and passengers to emergencies and possible evacuation.

9. Operating Conditions and Restrictions

The following operating restrictions *may* be imposed, based on the design and construction of the vessel as well as local conditions. In preparing or amending a COI, the OCMI shall use the Vessel File Operating Details (VFOD) in MSIS to specify restrictions.

Fires and Smoking

a. Fires and Smoking. Generally, smoking or cooking using an open flame should not be permitted during hours of passenger operation on vessels that do not meet structural fire protection standards for passenger vessels. This restriction may be relaxed for vessels possessing a Coast Guard COI for service other than a passenger vessel, or for foreign vessels having a valid SOLAS Cargo Ship Safety Certificate or a Special Purpose Ship Safety Certificate issued in accordance with IMO Resolution A.534(13).

Means of Access to the Vessel

b. Means of Access to the Vessel. The vessel shall be required to maintain a clear area around the gangway(s) to facilitate evacuation of passengers and access for emergency personnel and equipment.

Passengers Permitted

c. Passengers Permitted. The number of passengers on board shall be limited as determined by the OCMI. The OCMI may apply standards from 46 CFR, Subchapter T regarding deck area, rail space or fixed seating, or use stability information on the vessel, if available. The number of passengers permitted may be restricted based upon the number of crewmembers aboard the vessel available to respond to an emergency, adequacy of escape route(s) or width/number of gangway(s). Passengers shall not be permitted to remain overnight or go aloft in rigging.

Emergency Plans

d. Emergency Plans. OCMIs shall require the vessel owner or operator to develop emergency action plans to address evacuation of passengers in the event of an emergency on board and procedures for responding to passenger injury. This may include a requirement to submit a copy of a general arrangement plan of the vessel to assist the local fire department or other emergency responders. The OCMI should, as a matter of routine, notify the local fire department regarding an attraction vessel operation and encourage a familiarization visit to the vessel.

Communications

e. Communications. As a minimum, the vessel should have some form of radio or telephone communications available for emergencies, either on board or reasonably available on the pier. Public pay phones are not considered an acceptable alternative. Also, a listing of local phone numbers for Coast Guard, fire department, policy and other emergency services should be readily available.

10. Crew Assignments

Evaluation of Manning Adequacy

a. As part of an inspection for certification, the OCMI shall evaluate the crew assignments submitted by the vessel operator to determine if the number of personnel on duty is adequate for crowd control, emergency response and, if required, escorting passengers. The number of crewmembers required on board and on duty while conducting passenger operations should be based upon the following minimums:

(1) A person in charge, having authority over the vessel operation and crew, shall be assigned.

(2) A person shall be stationed in the immediate proximity of each gangway to monitor the arrival and departure of passengers.

(3) Additional personnel as necessary for escorting passengers below decks or maintaining a roving safety/fire watch.

Reduced Manning

b. Reduced Manning. The OCMI may authorize a reduced number of crewmembers on duty depending upon the number of passengers on board and the configuration of the vessel. This reduction may be contingent upon the vessel operator demonstrating that there are means to adequately monitor the number of passengers on board at any given time.

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11. U.S. Inspected Vessels Operating As Attraction Vessels

A U.S. vessel that possesses a valid COI as other than a passenger vessel or small passenger vessel and desires to operate as an attraction vessel shall be inspected to the extent necessary to determine that the vessel can safely accommodate the number of passengers requested. Upon requesting inspection, the vessel operator shall indicate the number of passengers requested, number of crewmembers aboard and job description, and provide a Port Operating Plan as specified in paragraph 7.b. The vessel's existing COI shall be amended to address special operating conditions that may be imposed while the vessel is operating as an attraction vessel.

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12. Operation in Other OCMI Zones

Vessels that will operate in more than one OCMI zone are subject to a "reinspection" prior to commencing operation in a new zone to satisfy the OCMI that the vessel is safe for the intended operation. In general, OCMIs should employ the conditions of a previous OCMI, but may impose additional operating restrictions more suitable to local conditions. In so far as possible, OCMIs should be consistent in their application of conditions and restrictions. The first OCMI who has contact with a vessel that will operate in other zones should obtain the vessel's itinerary (see 7.a.(8)) and notify the other OCMIs of the vessel's intentions.

MSIS

a. MSIS. OCMIs shall employ MSIS to enter vessel particulars, record inspection activities and deficiencies, and issue COIs. Detail products in the vessel file (e.g., portable fire fighting and lifesaving equipment) shall be entered to the extent necessary to reflect equipment requirements on the COI. Also, an inspection note should be entered in MSIS indicating the vessel's last hull examination date, regardless of whether the examination was attended by Coast Guard inspectors.

Vessel Inspection User Fees

b. Vessel Inspection User Fees. Because moored attraction vessels are issued Certificates of Inspection, they are subject to paying vessel inspection user fees, unless otherwise exempted. The qualifications for exemption are included in 46 CFR 2.10-5

> **NOTE:** These regulations were amended 21 April 1997 and are reflected in the 1998 version of the CFR.

Referencing the list of fees included in 46 CFR 2.10 (Table 2.10-101), attraction vessels measuring less than 100 gross tons will be assessed fees as "small passenger vessels"; attraction vessels of 100 gross tons or more will be assessed fees as "other" vessels.